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OPERATIONAL USE OF THE UH-IH HELICOPTERS IN ARCTIC ENVIRONMENT

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Technology, Incorporated

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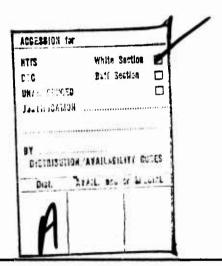


EUSTIS DIRECTORATE POSITION STATEMENT

In addition to the conventional four mission segments of data processing, the contractor has developed and incorporated a seven-mission-segment analysis which provides the design engineer with better insight into the parametric values and related maneuvers affecting structural integrity.

This report is published to define the operational use of the UH-1H in the arctic environment of Alaska as an engineering aid in the design and development of improved aircraft.

Mr. William T. Alexander, Jr., of the Technology Applications Division served as project engineer for this effort.



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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

From operational usage parameter measurements on two UH-1H helicopters, 88 hours of valid multichannel flight data were recorded between December 1972 and April 1973 while the helicopters operated from Fort Greely, Alaska. Data were processed and analyzed by two different techniques: (1) the Four Mission Segment technique which processed the data according to four flight phases, or mission segments, namely,

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ascent, maneuver, descent, and steady state; and (2) the Flight Condition Recognition (FCR) technique, which processed the data according to the occurrence of 20 different flight conditions within seven mission segments, namely, ground operation, hover, ascent, level flight, descent, transition, and autorotation. Data are presented in the form of time and occurrence tables, cumulative frequency distribution curves, and exceedance curves. In the comparison of the Alaskan UH-1H data with previous Southeast Asia (SEA) UH-1H data, both processed by the Four Mission Segment technique, the Alaskan data had greater amounts of time at the higher values of airspeed, gross weight, and engine torque but lesser amounts of time at equivalent rates of climb and descent. In the general comparison of the Alaskan data processed by the two techniques, the FCR data provided better resolution of the operational usage data, better identification of significant fatigue-damage maneuvers, and better definition of the maneuver-induced normal load factors. In addition, the FCR technique proved to be practical as well as capable of yielding more meaningful fatiguedamage information.

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PREFACE

Technology Incorporated, Dayton, Ohio, prepared this report to satisfy its contractual efforts on an operational usage data program to collect, process, and analyze an 88-hour sample of flight data obtained on two UH-1H helicopters operating in the Arctic environment. The program was sponsored by the Eustis Directorate, U.S. Army Air Mobility Research and Development Laboratory, Fort Eustis, Virginia, under Contract DAAJ02-73-C-0014, DA Task 1F262208AH9001. The project monitor for the Army was Mr. William Alexander.

Technology Incorporated wishes to acknowledge the support and cooperation given by TECOM and the Arctic Test Center at Fort Greely, Alaska. In particular, our thanks go to Colonel D. Shumacher, Lieutenant Colonel B. Young, and Major L. Morgan.

Technology Incorporated personnel responsible for this program were Mr. Joseph F. Braun, Manager of the Systems and Electronics Department; Mr. Henry C. Pender, Project Manager, who directed the installation and operation of the data recording systems; Mr. John F. Nash and Mrs. Ruth E. Meyers, who directed the data processing; and Messrs. Raymond B. Johnson, Jr., and Roy E. Johnson, Jr., who developed the FCR technique and directed the data analysis and presentation.

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INTRODUCTION

For the continued study of Army helicopter operations, a multichannel operational usage data program was conducted on two UH-1H helicopters flying assorted missions in the arctic environment from December 1972 to April 1973. During this period, 88 hours of valid in-flight data were recorded and processed for each of 15 time-related parameters. These parameters were selected to reflect the operational usage of the helicopters. Two techniques, the Four Mission Segment and the Flight Condition Recognition (FCR) methods, were used in processing and analyzing the data.

The program objectives were to acquire operational usage data of the UH-1H operation in the arctic environment; to develop an improved method for acquiring and processing operational usage data; and to analyze these data in an effort to improve the fatigue analyst's understanding of the operational flight spectrum of U.S. Army helicopters and its effect in defining reliable design criteria for helicopters.

The UH-1H is an all-metal, single-engine helicopter. A single, two-bladed, semirigid teetering main rotor provides lift, and a two-bladed, semirigid, delta-hinged tail rotor provides antitorque and directional control. Figure 1 presents a photograph and a summary of the characteristics and limitations of the UH-14 helicopter. An oscillograph-type recording system was used to measure the following 15 in-flight parameters: airspeed; altitude; vertical, lateral, and longitudinal acceleration at the helicopter's center of gravity; outside air temperature; main rotor speed; engine torque; longitudinal cyclic boost tube, lateral cyclic boost tube, and collective cyclic boost tube loads; and longitudinal control, lateral control, collective control, and rudder pedal positions -- all related to time. Field personnel logged additional information to permit the computer processing of the in-flight recordings. Such supplementary data consisted of time, fuel, and load at takeoff and landing: base pressure and temperature at takeoff; and mission type. The data processing derived additional parameters: specifically, the instantaneous weight, the rotor tip speed ratio, and the ratio of the thrust coefficient to the rotor solidity.

As previously used and documented in USAAMRDL TR-73-151, the

Johnson, Raymond B., Clay, Larry E., and Meyers, Ruth E., OPERATIONAL USE OF UH-1H HELICOPTERS IN SOUTHEAST ASIA, Technology Incorporated, Dayton, Ohio; USAAMRDL Technical Report 73-15, U.S. Army Air Mobility Research and Development Laboratory, Fort Eustis, Virginia, May 1973, AD 764 260.

Four Mission Segment technique divides the operational usage data into four categories or mission segments: ascent, maneuver, descent, and steady state. The first three segments are transient, or unsteady, regimes of flight and are distinguished from the steady-state segment by the variations in the control boost tube load, airspeed, and altitude parameters. As developed during this program, the FCR technique segregates the data into 24 distinct flight conditions, such as left or right turn, collective pull-up or pushover, and takeoff or landing, occurring in any one of seven mission segments. The seven mission segments are ground operation, hover, ascent, level flight, descent, transition, and autorotation.



Figure 1. UH-1H Helicopter.

This report describes the recording system and its installation in each of the two UH-1H helicopters, details the data collection, defines the recorded and derived parameters, outlines the data processing and quality control, explains the data computations, and finally presents and analyzes the processed data.

INSTRUMENTATION

To obtain the required operational usage data, oscillographic recording systems were installed in two UH-1H helicopters assigned to the Arctic Test Center at Fort Greeley, Alaska. Identified by serial numbers 66-16969 and 67-17686, these aircraft participated in the entire data acquisition effort from December 1972 to April 1973.

DESCRIPTION OF RECORDING SYSTEM COMPONENTS

3

Four Century Model 409B oscillograph recorders, each with 14 data channels and capable of recording 12 dynamic parameters on 3-5/8-inch-wide photosensitive paper, were used in this program because of their inherent design to withstand severe shock and vibration and extreme environmental conditions. In this program two recorders were installed on each aircraft to record 15 channels of in-flight variables, several of which were recorded on both recorders to expedite the data reduction. On each recorder, one channel was used to monitor the supply voltages, a second to delineate a time pattern reflecting a 1-minute cycling, which was used to correlate the data, and a third to trace a static line for measurement reference.

Two Technology Incorporated Model 49776 signal conditioning units were used on each aircraft to regulate the voltage signals from the various transducers. These units were modified to amplify the boost tube strain, airspeed, and altitude trace deflections.

To derive airspeed, a Statham Model PM96TC-.5-350 (0 to 0.5 psid) pressure transducer was used to measure the dynamic pressure. To derive altitude, a Statham Model P96-15A-350 (0 to 15 psia) pressure transducer was used to measure the ambient static pressure.

For the three linear acceleration measurements, a Statham Model A3-5-350 (± 5 g) accelerometer was used to sense vertical acceleration, and two Statham Model A3-1.5-350 (± 1.5 g) accelerometers were used to sense lateral acceleration and longitudinal acceleration.

A frequency-to-voltage converter and associated circuitry were incorporated in the recording system to measure the rotor speed by sensing the frequency of the rotor tachometer generator.

A Minco Model S-6B resistance thermal ribbon was used to measure the outside air temperature.

To measure the engine torque pressure, a Viatron Model PTB103 (0 to 100 psig) pressure transducer was connected in parallel with each helicopter's torque pressure transmitter.

Micro-Measurements Corporation Model EA-13-250BF-350 strain gages were installed on the longitudinal cyclic, lateral cyclic, and collective boost tubes to measure the strains in these components resulting from control and rotor motions. Two sets of gages were mounted side-by-side on each boost tube, and each set was wired into a Wheatstone bridge with two active arms and two inactive arms for temperature compensation. One set of gages was designated as "primary" and the other as a "spare." After their installation on the boost tubes, both the primary and the spare bridges were calibrated to provide a relationship between the bridge output in volts and the boost tube axial load in pounds.

Collective control stick and rudder pedal positions were measured by utilizing Transducer Controls Corporation Model TCC-PT101-15B position transducers; and the longitudinal and lateral control stick positions were measured with Markite Model 2094 infinite-resolution potentiometers.

The block diagram in Figure 2 illustrates the functional integration of the components making up the recording system.

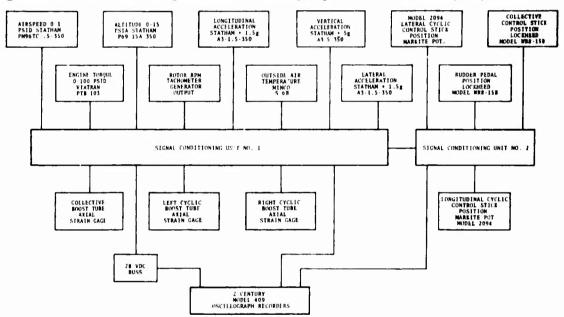


Figure 2. Functional Block Diagram of Oscillograph Recording System Installed in UH-1H Helicopters.

INSTALLATION OF RECORDING SYSTEM

The two Century 409 recorders, the two signal conditioning units, and the external 30-second timer were located just forward of the transmission housing. These units were mounted to a flat plate which was secured to the floor of the aircraft by using the existing floorboard mounting holes.

Figure 3 is an outline drawing of the UH-1H helicopter showing the recording system component locations.

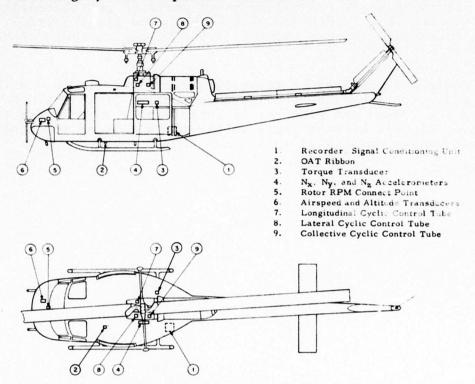


Figure 3. Multiview Drawing of UH-1H Helicopter With Locations of Major Recording System Components.

The three accelerometers were mounted close to the aircraft cg on a special bracket which was attached to the aircraft structure to the left side and just forward of the rotor shaft. The engine torque transducer was mounted to the right forward firewall. Two spare hose clamps were removed from this area to provide the clamp mounting holes for this installation. High pressure hose assemblies were installed in parallel to the aircraft torque transmitter. The airspeed and altitude transducers were mounted in the nose compartment by using existing holes in the aircraft. Low-pressure hose assemblies were installed to sense the aircraft's pitot and static pressure systems.

The input load for rotor rpm was connected to pin No. 2 of terminal board No. 1 to sense the output of the rotor tack generator. The OAT ribbon was attached to the bottom of the aircraft just to the left of the aft searchlight. The wires from the OAT ribbon were routed into the aircraft through existing

drain holes. The existing three boost tubes were removed from the aircraft and replaced by the three instrumented boost tubes. The collective stick and rudder pedal position potentiometers were mounted to a special bracket beneath the floor board. The actuator arms were connected to the "floating" bell crank assembly.

D.C. power was acquired by installing a circuit breaker in the overhead circuit breaker panel and connecting it to the D.C. buss. A.C. power was acquired by installing a fuse holder in the A.C. circuit breaker panel on the right side of the center console and connecting it to the A.C. power source.

DATA COLLECTION

During the data collection period from December 1972 to April 1973, 88 hours of in-flight data were recorded. All 88 hours of data were processed by the Four Mission Segment technique and 36 hours of these data were processed by the FCR technique. Since the data acquisition under Arctic conditions was severely limited because of unusually warm weather during the recording period, some oscillograms of recordings made during the low-temperature flights were used to increase the size of the data sample even though there were data traces in these recordings that were considered invalid. Table I lists the validly record ed data hours for the 11 in-flight parameters processed for the final data presentation. The processed data represent 108 engine starts and 156 touchdowns.

TABLE I.	HOURS OF	VALID	DATA	RECORDED	FOR	ELEVEN	IN-
	FLIGHT PARAMETERS						

Parameter	Flight Hours of Valid Dat
Airspeed	88.5
Altitude	88.5
Outside Air Temperature	88.5
Vertical Acceleration	88.5
Lateral Acceleration	79.4
Longitudinal Acceleration	67.1
Rotor Speed	59.5
Engine Torque	87.4
Longitudinal Cyclic Boost Tube Load	65.9
Lateral Cyclic Boost Tube Load	65.9
Collective Boost Tube Load	65.9

After each recorded flight, the field technician filled out a special form to log the supplemental data needed to process the oscillograms. This additional data included the following:

flight date; mission type; base elevation; barometric pressure and temperature at takeoff; base location, time, and fuel, passenger, and cargo weights at takeoff and landing; and airspeed and rotor speed at various check points. The field technician also logged the serial number of each transducer so that the calibration data could be correlated with the recorded data during the data processing. In addition, upon developing the oscillograms and observing any trace anomalies, the technician took remedial action as soon as possible.

DATA DEFINITIONS

RECORDED PARAMETERS

Of the 15 recorded in-flight parameters, the following 11 were to be processed for final data presentation: (1) airspeed, (2) altitude, (3) outside air temperature, (4) c.g. vertical acceleration, (5) c.g. lateral acceleration, (6) c.g. longitudinal acceleration, (7) rotor speed, (8) engine torque, (9) longitudinal cyclic boost tube load, (10) lateral cyclic boost tube load, and (11) collective boost tube load. For each of these parameters and the computed parameters presented below, Table II lists the ranges selected for the data blocks.

COMPUTED PARAMETERS

From the fuel, cargo, and passenger weights at takeoff and landing, as logged on the supplemental data sheets, the gross weight was computed for the start and end of each mission. A constant rate of fuel consumption was assumed to obtain the average weight-loss rate that was used to compute the instantaneous gross weight. Weight gains or losses because of cargo or passenger changes were introduced at times noted on the supplemental data sheets.

Since the pitot-static position error was judged to be negligible in the range of interest, only indicated airspeeds were considered. Rotor speed and outside air temperature were computed by applying the calibrations to the trace measurements. On the basis of the average slope of pressure altitude derived from the static pressure trace, the rate of climb was computed continuously during each mission segment. Engine torque was calibrated in units of psi as taken from the cockpit indicator.

To obtain the boost tube loads, the measured trace displacements of these loads from their hovering mean were converted to pounds of force.

Each peak of c.g. vertical acceleration, a_z , was measured directly from the oscillogram trace. To obtain the normal load factor, n_z , and the incremental normal load factor, Δn_z , for each vertical acceleration, the following relationships were used:

$$\Delta n_z = \frac{a_z}{g}$$

$$n_z = \Delta n_z + 1.0$$

TABLE II. DATA PROCESSING RANGES FOR RECORDED AND COMPUTER PARAMETERS

		Recorded Parameters			
n _x and n _y (g)	Airspeed (kn)	Longitudinal, Lateral and Collective Stick Boost Tube Load (1b)	n _z (g)	OAT (°F)	
<-0.40	<40	<-450	<0.2	<-100	
-0.40 to -0.35	40 to 60	-450 to -400	0.2 to 0.4	-100 to -80	
0.35 to -0.30	60 to 70	-400 to -350	0.4 to 0.5	- 80 to -60	
-0.30 to -0.25	70 to 75	-350 to -300	0.5 to 0.6	- 60 to -40	
-0.25 to -0.20	75 to 80	-300 to -250	0.6 to 0.7	- 40 to -20	
-0.20 to -0.15	80 to 85	-250 to -200	0.7 to 0.8	- 20 to 0	
-0.15 to -0.10	85 to 90	-200 to -150	0.8 to 1.2	0 to 20	
-0.10 to 0.10	90 to 95	-150 to -100	1.2 to 1.3	20 to 40	
0.10 to 0.15	95 to 100	-100 to 100	1.3 to 1.4	≥40	
0.15 10 0.20	100 to 105	100 to 150	1.4 to 1.5	Dotor Speed (rpm)	
0.20 to 0.25	105 to 110	150 to 200	1.5 to 1.6	Rotor Speed (rpm) <274	
0.25 to 0.30	110 to 115	200 to 250	1.6 to 1.7	274 to 284	
0.30 to 0.35	115 to 120	250 to 300	1.7 to 1.8	284 to 294	
0.35 to 0.40	120 to 125	300 to 350	1.8 to 2.0		
≥0. 4 0	≥125	350 to 400	2.0 to 2.2	294 to 304	
		400 to 450	2.2 to 2.4	304 to 314	
		≥450	≥2.4	314 to 324	
				324 to 334	
				≥334	
		Computed Parameters	<u>s</u>		
a- (a)		Rotor Tip	Gross Weight (1)	Engine b) Torque (psi)	
	limb Rate (ft/m	in) Speed Ratio (µ)	<6000	<10	
<0.2	<-2100	0.05 to 0.10	6000 to 7000	10 to 20	
0.2 to 0.4	-2100 to -1800		7000 to 8000	20 to 30	
0.4 to 0.5	-1800 to -1500		8000 to 9000	30 to 40	
0.5 to 0.6	-1500 to -1200		>9000	40 to 50	
0.6 to 0.7				50 to 60	
0.7 to 0.8	-900 to -600			60 to 70	
0.8 to 1.2	-600 to -300	-		>70	
1.2 to 1.3	-300 to 300			-	
1.3 to 1.4	300 to 600 600 to 900				
1.4 to 1.5			or Solidity	Density	
1.5 to 1.6	900 to 1200	(C _T /σ)		titude (ft)	

<0.02

≥0.08

0.02 to 0.04

0.04 to 0.06

0.06 to 0.08

<-6000

-3000 to 0

>6000

-6000 to -3000

0 to 3000

3000 to 6000

1200 to 1500

1500 to 1800

1800 to 2100

>2100

1.6 to 1.8

1.8 to 2.0

2.0 to 2.2

2.2 to 2.4

2.4 to 2.6

≥2.6

For each of the normal load factors, the equivalent normal load factor, nze, was computed according to the following relationship:

$$n_{z_e} = n_z \frac{W_i}{W_D}$$

where n_z = normal load factor for vertical acceleration peak W_1 = instantaneous weight at time of acceleration peak W_D = design gross weight, 6600 1b

For each data reading point, three derived parameters were added: the rotor tip speed ratio, the ratio of thrust coeffient to the rotor solidity, and the density altitude.

The rotor tip speed ratio, u, was computed by the following equation:

$$\mu = \frac{V}{\Omega R}$$

where V = airspeed, ft/sec

 Ω = rotor angular velocity, rad/sec R = rotor radius, 24.0 ft

The following equation was used to compute the ratio of thrust coefficient to the rotor solidity, that is, CT/o:

$$C_T/\sigma = \frac{W}{\rho \pi^2 (\Omega R)^2 \sigma}$$

where C_T = thrust coefficient

 \hat{W} = gross weight (instantaneous), 1b

ρ = air density at altitude, slugs/ft'

 σ = rotor solidity = 0.0464

The following equation² was used to compute the density altitude, hd, since this parameter is normally used in describing helicopter performance:

$$h_d = 145,300 \left[1 - \left(\frac{518.4 P_a}{29.92 (OAT + 460)} \right) \right]^{0.235}$$

where P_a = static pressure, inches of mercury OAT = outside air temperature, °F

von Mises, Richard, THEORY OF FLIGHT, McGraw Hill Book Company, Inc., New York, 1945, p. 11.

DATA PROCESSING

INTRODUCTION

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The acquired data were processed by two different methods: the Four Mission Segment and the Flight Condition Recognition (FCR) techniques. The first technique was originally developed to gain better insight into the operation of U.S. Army helicopters and thereby to improve the design criteria for future helicopters. Recent attempts of prime helicopter manufacturers to relate the Four Mission Segment data directly to a fatigue spectrum, and hence to component fatigue analyses, have not been entirely successful as documented in USAAMRDL TR-73-40³, TR-73-39⁴, and TR-73-41⁵. Consequently, as an improved technique, the FCR technique was implemented during the current program. This technique is an outgrowth of an Air Force-conducted study, 6 which investigated and formulated new techniques in acquiring and processing operational usage data for the purpose of defining fatigue spectra.

Herskovitz, A., and Steinmann, H., CH-47A DESIGN AND OPERATIONAL FLIGHT LOADS SURVEY, Boeing-Vertol Division, Boeing Company, Philadelphia, Pennsylvania; USAAMRDL Technical Report 73-40, U.S. Army Air Mobility Research and Development Laboratory, Fort Eustis, Virginia, November 1973, AD 772 949.

Mongillo, A.L., and Johnson, S.M., CH-54A DESIGN AND OPERATIONAL FLIGHT LOADS STUDY, Sikorsky Aircraft Division, United Aircraft Corporation, Stratford, Connecticut; USAAMRDL Technical Report 73-39, U.S. Army Air Mobility Research and Development Laboratory, Fort Eustis, Virginia, November 1973, AD 773 551.

Glass, Marc E., Kidd, David L., and Norvell, John P., AH-1G DESIGN AND OPERATIONAL FLIGHT LOADS STUDY, Bell Helicopter Company, Fort Worth, Texas; USAAMRDL Technical Report 73-41, U.S. Army Air Mobility Research and Development Laboratory, Fort Eustis, Virginia, January 1974.

Johnson, Roy E., and Silcott, Charles J., METHODS TO DETERMINE THE SERVICE USAGE SPECTRUM OF THE UH-1F HELICOPTER, Technology Incorporated, Dayton, Ohio; Technology Incorporated Report 43220-72-1, Aircraft Systems Engineering Branch, Warner Robins Air Materiel Area, Robins Air Force Base, Georgia, March 1972.

The FCR technique implemented during this program was developed so that fatigue analysts could easily understand and interpret the processed data. The various general methods of identifying typical helicopter flight conditions were reviewed, refined, and integrated into a single method. The major factors which influenced this development were costs, availability of transducers, and ease in establishing recognition patterns of the various flight conditions. Consequently, the FCR technique presented in this report is only one of a number of technically practical techniques.

In addition to the parameters previously recorded on the UH-1H (Reference 1), four parameters--longitudinal and lateral control positions, collective position, and rudder pedal position--were required to process the data by the FCR technique.

Seven mission segments and twenty-four distinct flight conditions were defined, and editing criteria based on various combinations of these were formulated. In a brief flight test program to verify or improve instrumentation sensitivities and editing criteria, various maneuvers, such as left and right turns, were performed in level flight and during hover.

The following paragraphs discuss the principles and procedures to edit, read, check, and accept the oscillogram data processed by both the Four Mission Segment and the FCR technique.

FOUR MISSION SEGMENT DATA PROCESSING

As in previous programs to process helicopter operational usage data (Reference 1), the oscillogram data for each flight were separated into four mission segments: (1) ascent, (2) maneuver, (3) descent, and (4) steady state. The first three segments are the transient, or unsteady, regimes of flight and were distinguished from the steady-state segment by the variations in the stick boost tube load, airspeed, and altitude traces. segments were identified and defined as follows: ascent included both the takeoff and climb to the initial cruise altitude and all other unsteady ascents to other altitudes; maneuver included flight sections where ascents and descents were too short to be classified as such and were characterized by activity in the airspeed, altitude, and stick boost tube traces; descent included the unsteady part of flare and landing and all other unsteady descents; and steady state included cruise, hover, steady ascent (after the initial climb), and steady descent. Flare and landing initiated from hover was included in steady Such steady-state sections were identified by minimal fluctuation of the stick boost tube traces about mean values and the constancy or smooth change of the airspeed and altitude traces.

Preparatory to the data reading, data processing editors examined each oscillogram for evidence of any instrumentation anomaly such as improper sensitivity. The editors timed all flights and demarcated the four mission segments in each flight according to the foregoing criteria.

After demarcating the flights into mission segments, the editors marked the traces to govern the data reading. The vertical acceleration trace was marked wherever a peak met the following two conditions: (1) the peak fell outside prescribed threshold levels (±0.2g about the 1.0g mean), and (2) the peak had a rise and a fall (or fall and rise) that were each 50 percent of the primary peak value or 0.2g, whichever was greater. Although the prescribed thresholds were 0.8g and 1.2g, the editors used levels of 0.84g and 1.16g to ensure the inclusion of all valid peaks. However, any of the peaks read within the fixed threshold levels of 0.8g and 1.2g were eliminated during the processing. In addition, the editors identified each peak as being maneuver- or gust-induced. To determine whether a peak was induced by a maneuver or a gust, the editors noted the behavior of the vertical acceleration (nz) and airspeed traces. An n_z peak was coded as being gust-induced if the airspeed trace had a jagged pattern and the n_z peak had a short duration and an exponential decay. All other peaks were coded as maneuvers.

The editors marked primary peaks on the lateral and longitudinal acceleration traces wherever they deflected outside the prescribed threshold of $\pm 0.1g$. These peaks were not identified as being maneuver- or gust-induced. As before, to ensure the inclusion of all valid peaks, the editors used levels of $\pm 0.097g$ instead of 0.1g. Again, however, any peaks read within the prescribed threshold of $\pm 0.1g$ were eliminated during the computer processing.

In editing the three control stick boost tube load traces, the editors marked (1) those peaks that fell outside the threshold of ±100 pounds and (2) those peaks that had a rise and a fall that were each 50 percent of the primary peak value or 100 pounds, whichever was greater. The normal value used was dependent on the mission segment; for the steady-state mission segment, the normal used was the steady value of the boost tube traces just before and after the peak load was encountered. For the three transient mission segments, a set of mean values was chosen to approximate the boost tube loads during hover. These mean values were used as the zero values for all boost tube load calculations.

At each vertical acceleration peak, the traces were measured for values of c.g. normal load factor, n_z ; c.g. longitudinal

load factor, n_X ; and c.g. lateral load factor, n_Y . At each primary longitudinal acceleration peak, the traces were measured for values of n_Y , n_X , n_Z , and longitudinal cyclic boost tube load. At each primary lateral acceleration peak, the traces were measured for values of n_X , n_Y , n_Z and the lateral cyclic boost tube load. Also, the boost tube load traces, along with the airspeed, altitude, rotor speed, and engine torque traces, were marked for sufficient points to permit an adequate representation of the flight profile.

The peak values of the three linear accelerations were measured from the normal (static) positions of the respective traces. These positions were defined when the traces indicated that the helicopter was in a cruise condition. The positive sense of $n_{\rm X}$ is acceleration forward, and the positive sense of $n_{\rm Y}$ is acceleration to the right.

Following the editing of each oscillogram, the data were measured on semiautomatic oscillogram readers, and the measurements were converted into engineering units. These operations are discussed in later paragraphs.

FLIGHT CONDITION RECOGNITION DATA PROCESSING

In the Flight Condition Recognition (FCR) data processing, the oscillogram data for each flight were separated into seven mission segments: (1) ground operation, (2) hover, (3) ascent, (4) level flight, (5) descent, (6) transition, and (7) autorotation. Ground operation was identified by unvarying airspeed and altitude at ground values; engine torque and rotor speed above specified minimums but below values required for hover; and vertical acceleration (n_z) characteristics in ground operation. Hover was identified by airspeed at approximately zero; steady altitude; engine torque pressure of approximately 35 psi; and the longitudinal and the lateral cyclic control movement and the vertical acceleration choppy about a steady mean. Ascent was identified by altitude increasing at a rate greater than approximately 300 feet per minute and a higher than average torque pressure. Level flight was identified by relatively constant control positions, rotor speed, engine torque pressure, and altitude. Descent was identified by altitude decreasing at a rate greater than approximately 300 feet per minute. Transition was identified by large torque pressure gradients before and after the autorotation segment. Autorotation was identified by decreasing altitude, a high rate of descent, and a low engine torque pressure.

In editing the oscillograms, the data processing editors examined each oscillogram for evidence of any instrumentation

anomaly. The editors timed all flights and demarcated the seven mission segments in each flight according to the foregoing criteria.

After demarcating the flights into mission segments, the editors identified the various flight conditions in each of the mission segments. For this program, 25 flight conditions were tentatively established. As noted in Table III, 24 flight conditions were finally defined and used; one of the initially proposed conditions, No. 10 in the table listing, was later omitted. All 25 numbers, however, were retained in the data processing. Also identified in Table III are the mission segments in which the flight condition could occur, the time limit on the flight condition, and the basic characteristics of each flight condition. Two examples of the editing technique of identifying mission segments and flight conditions are shown in Figures 4 and 5. The first example, Figure 4, illustrates a collective pull-up during the level flight mission segment. Gusty conditions had caused a slight descent and the collective pull-up was used to initiate a slight ascent as a correction. The pull-up was identified by the increase in collective control, the increase in torque pressure, and the occurrence of a positive vertical acceleration peak. In this example, the recovery from the collective pull-up was a collective pushover. The second example, Figure 5, illustrates a flare during the descent mission segment. A steady-state descent was in progress as indicated by the decrease in altitude and the low engine torque pressure at the extreme left of the figure. The flare begins with the application of engine torque and the decrease in the rate of descent. The flare terminates in a steadystate hover, followed by a touchdown.

Following the identification of the various flight conditions in each mission segment, the editors marked the traces to govern the data reading. Except for two differences, the procedures for the FCR technique were the same as those for the Four Mission Segment technique. Both of these differences involved the vertical acceleration trace. First, the thresholds of 0.8g and 1.2g (actually 0.84g and 1.16g for reading) were used for all flight conditions except for left and right turns; for turns, the thresholds were 0.9g and 1.1g (actually 0.94g and 1.06g for reading). This reduced threshold was used to counter the apparent reduction of vertical accelerations due to helicopter fuselage banking during the turn. The second difference was the measure of the duration of the vertical acceleration trace above the threshold values. All other procedures previously discussed in the Four Mission Segment Data Processing paragraph were also used during the FCR processing.

1	TABLE	III. FLIGHT	CONDITION	NS USED IN THE FCR TECHNIQUE	
Flight Condition	No.	Mission Segment	Duration (Min.)	Characteristics	
Rotor Start	1	1	0.0	Torque and rotor rpm increade from below minimums.	
Steady State	2	1,2, 3,4,5,7	>.1 >.2	Torque, rpm, sticks, and A/S are steady or varying slightly about a steady mean.	
Transient	3	1,6	-	Period of rapidly varying torque and rpm.	
Takeoff	4	2,3	-	N_{Z} change from ground to air; torque increasing.	
Collective Pushover	5	2,3,4,5	-	Collective decrease to terminate or reduce ascent or to initiate or increase descent; torque decrease; negative n _z peak.	
Collective Pull-up	6	2,3,4,5,7	-	Collective increase to initiate level flight or ascent or to decrease rate of descent; torque increase; positive n _z peak.	
Flare	7	4,5,7	>.1	Same as a collective pull-up but occurring in ground effect immediately before landing or hover.	
Touchdown	8	2,4,5,7	0.0	$\ensuremath{\text{N}_{\text{Z}}}$ changes from flight to ground characteristics.	
Rotor Stop	9	1	0.0	Torque and rotor speed decrease to below minimums.	
no	(10) ot use	d		(Allocated for a flight condition which was later omitted.)	
Left Turn	11	3,4,5,7	>.1 >.2	Lateral stick moves left at entry and returns to mean, but moves right at recovery and returns to mean; rudder deflects left at initiation and returns to mean at termination; varying torque and/or A/S may affect the lateral and rudder characteristics; during a hover expect to see only the rudder characteristic	
Right Turn	12	3,4,5,7	>.1 >.2	Lateral stick moves right at entry and returns to mean, but moves left at recovery and returns to mean; rudder deflects right at initiation and returns to mean at termination; varying torque and/or A/S may affect the lateral and rudder characteristics; during a hover expect to see only the rudder characteristic.	

TABLE III - Concluded						
Flight Condition	No.	Mission Segment	Duration (Min.)	Characteristics		
Cyclic Pushover	13	2,3,4,5	-	Forward longitudinal cyclic to terminate or reduce ascent or to initiate descent while in flight; negative n _z peak.		
Cyclic Pull-up	14	2,3,4,5	-	Aft longitudinal cyclic to initiate ascent while in flight or to terminate or decrease rate of descent; A/S decrease and/or torque increase; positive n _z peak.		
Longitu- dinal Reversal	15	2,3,4,5,7	<.1	Longitudinal stick position peak exceeding 10% full stick deflec- tion and not related to another flight condition.		
Lateral Reversal	16	2,3,4,5,7	<.1	Lateral stick position peak exceeding 10% full stick deflection and not related to another flight condition.		
Rudder Reversal	17	2,3,4,5,7	<.1	Rudder position peak exceeding 10% full rudder deflection and not related to another flight condition.		
Left- Sideward Flight	18	2	>.1	Lateral stick deflects to left and returns; collective and torque may increase slightly.		
Right- Sideward Flight	19	2	>.1	Lateral stick deflects to right and returns; collective and torque may increase slightly.		
Rear- ward Flight	20	2	>.1	Longitudinal stick deflects aft and returns; collective and torque may increase slightly.		
Ground Taxi	21	1	-	$N_{\rm Z}$ will not be characteristic of ground conditions, but A/C is on the ground.		
Initia- tion of Ascent	22	2,3	-	Collective input; torque increas and positive n_z peak.		
End in Flight	23	1,2,3,4, 5,6,7	0.0	Recorder ran out of paper or malfunctioned.		
Mission Segment Variation	24	3,4,5	0.0	No obvious pull-up or pushover between mission segments.		
Begin in Flight	25	1,2,3,4, 5,6,7	0.0	Recorder started in middle of flight.		

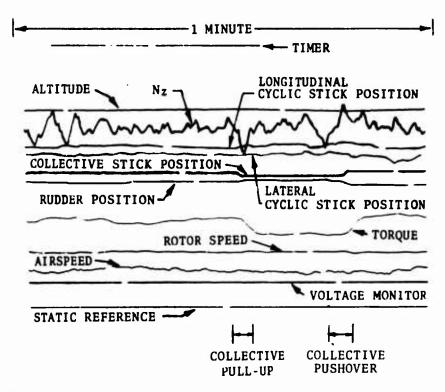


Figure 4. Oscillogram Showing Collective Pull-up.

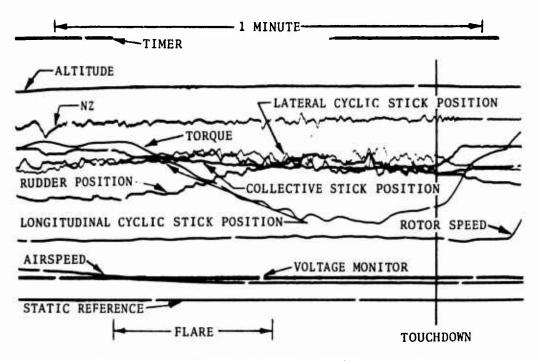


Figure 5. Oscillogram Showing Flare.

Following the editing of each oscillogram, the data were measured on semiautomatic oscillogram readers and the measurements were converted into engineering units. These operations are discussed in the following paragraphs.

DATA READING AND QUALITY CONTROL

All data points selected during the editing for each data processing technique were measured on semiautomatic oscillogram readers which transcribed the measurements directly onto punched cards. When all data were extracted from a flight, a printout of the cards was given to the quality control personnel for preliminary data checking. Using standard quality control techniques, these personnel manually remeasured points constituting an adequate random sample and compared the measurements with those produced on the semiautomatic readers. The differences obtained between the two sets of readings were used to establish the mean and standard deviations as a control of the desired accuracy. The flights whose measurements did not meet the accuracy standard so established were reread on the semiautomatic readers. In addition to obtaining accurate values, this procedure ensured a uniform interpretation and measurement of the traces.

When all data had been processed, the mean and the standard deviation were calculated for the entire data sample. Assuming a normal distribution of reading errors, 99.7 percent of the readings should be within three standard deviations of the true values. Based on average calibration values, Table IV shows the three-standard-deviation variation for each parameter.

FINAL DATA ACCEPTANCE

As the data for each flight were found acceptable by quality control, the data were processed on the CDC 6600 computer at Wright-Patterson Air Force Base. During the continuing data processing, the printouts of the processed data were compared with the corresponding oscillograms and supplementary data sheets to check extreme values and parameter distributions. If any errors in the data were detected, they were corrected and the entire flight was reprocessed through the computer.

After flights were found acceptable following either the initial printout review or the subsequent correction, their data were filed on a master tape containing the data from previously accepted flights. This procedure was repeated until the data for all flights were merged on the master tape. This tape

was then used to produce the various tapes needed to generate the tables presented in this report.

TABLE IV. DATA READING VARIATIONS FOR EACH PARAMETER

	3σ Variation		
Parameter	FCR Data	Four Mission Segment Data	
Altitude (at 2000 feet) Airspeed (at 90 knots) nx ny nz OAT Rotor rpm Engine Torque Collective Boost Tube Cyclic Lateral Boost Tube Cyclic Longitudinal Boost Tube	<pre>± 92 ft ± 1.5 kn ± 0.01g ± 0.02g ± 0.02g ± 1.4°F ± 1.5 rpm ± 0.5 psi ± 34 1b ± 19 1b ± 26 1b</pre>	<pre>± 136 ft ± 3.0 kn ± 0.02g ± 0.04g ± 0.04g ± 2.1°F ± 2.0 rpm ± 0.7 psi ± 43 lb ± 25 lb ± 32 lb</pre>	

DATA PRESENTATION AND ANALYSIS

INTRODUCTION

This section presents and analyzes separately the two groups of processed data: those processed by the Four Mission Segment technique and those processed by the FCR technique. In general, these data are compared with the flight spectra for the UH-1H helicopters flying in SEA; with the flight spectra data obtained for similar types of helicopters; with the empirical fatigue spectrum initially used to establish the preliminary component service lives; and with the empirical spectrum defined in the Civil Aeronautics Manual 6, Appendix A.

This data presentation and analysis covers 88 hours processed by the Four Mission Segment technique and 36 hours processed by the FCR technique. Fewer hours could be processed by the FCR technique because of the malfunctioning of the transducers for the required additional parameters, insufficient system sensitivity, and aircraft vibrational problems. Because of the great differences in the two data processing techniques, no data analysis was based on the direct comparison of the data processed by one technique with those processed by the other technique.

The data presented in this report consist of two types of figures and two types of tables. The two graphical presentations are cumulative frequency distribution curves of the percentage of time within various parameters such as airspeed, rotor speed, and engine torque; and "exceedance" curves, that is, curves of the number of flight hours required for a parameter, such as Anz, rate of climb, and boost tube load, to reach or exceed given levels (or curves of the cumulative number of parameter values at a given level per 1000 hours of flight). The two tabular formats are (1) flight time distributed among the coincident ranges of two or more parameters, and (2) frequency of acceleration peaks and incremental boost tube load peaks distributed among the coincident ranges of the peaking parameter and other variables. All times shown were rounded to the nearest tenth of a minute. Since in each subtable the total under the time column was computed and then rounded. a total may not agree with the sum of the rounded times in each Times between 0 and 0.05 minute were printed as ".0", and times equal to zero were printed as "0.0". Tables having Table headings are neither points nor time were not printed. arranged so that the first-mentioned variable refers to the horizontal ranges at the top of the table and the second-mentioned variable refers to the vertical ranges at the left of the table. Where a third or a fourth variable is given, it is

followed by its range in the heading. As an example, the heading "MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 6000 BY MISSION SEG. ASCENT" indicates the time spent in the coincident ranges of altitude and airspeed at a weight between 6000 and 7000 pounds during the ascent mission segment. All printed range values are the lower limits.

Sample oscillograms are presented throughout this section to show various occurrences of maximum values of selected parameters. For each example, the values for rotor speed, indicated airspeed (V_i), density altitude, gross weight, μ , C_T/σ , outside air temperature (OAT), rate of climb, and engine torque were calculated at a time splice near the n_Z peak and written on a reproduction of the oscillogram section containing the maneuver. Then the recorded traces were identified by the parameter name: the reference lines for torque = 0 psi, n_Z = 1.0g, rotor speed = 0.0 rpm, and V_i = 0.0 knot were indicated; and the calibration slopes (parameter change for "J-inch trace deflection) for torque, n_Z , rotor speed, and were noted. The following list gives the sign convention to the UH-1H oscillograph recording system:

- (1) Airspeed moves up the chart as airspeed increases.
- (2) Altitude moves down the chart as altitude increases.
- (3) Rotor speed moves down the chart as rpm increases.
- (4) Torque moves down the chart as torque increases.
- (5) N_X , N_Y movement up the chart is positive and down is negative.
- (6) N_Z movement up the chart is negative and down is positive.
- (7) Longitudinal control movement up the chart is forward movement.
- (8) Lateral control movement up the chart is left movement.
- (9) Collective control moves down the chart as collective increases.
- (10) Rudder control movement up the chart is left movement.
- (11) Longitudinal cyclic boost tube load moves down the chart when the load is positive (tensile).
- (12) Lateral cyclic boost tube load moves up the chart when the load is positive (tensile).

(13) Collective boost tube load moves up the chart when the load is positive (tensile).

FOUR MISSION SEGMENT DATA PRESENTATION

The following presentation of the 88 hours processed by the Four Mission Segment technique is divided into eleven sections: mission segments, airspeed, rotor speed, gross weight, engine torque, altitude, outside air temperature, rate of climb, normal load factor, control boost tube load, and miscellaneous parameters.

Mission Segments

On the basis of the mission segments of ascent, maneuver, descent, and steady state defined in the Data Definitions section, the current (Alaskan) UH-1H data are compared in Figure 6 with the UH-1H fatigue spectrum, with the CAM-6 spectrum, and with operational usage data for the UH-1H operating in SEA (see Reference 1).

The Alaskan UH-1H helicopters spent the following percentages of time in each of the four mission segments: ascent, 18 percent; maneuver, 1 percent; descent, 17 percent; and steady state, 64 percent.

The comparison of the Alaskan data with the SEA data reveals that the helicopters in both environments spent similar amounts of time in the various mission segments but that they did not fly according to the design or the CAM-6 spectrum. As discussed in Reference 1, the current data again demonstrate the individuality of flight spectra and the importance of mission assignment in establishing the characteristics of the operational usage spectrum.

Airspeed

The airspeed frequency distribution for the current UH-1H data is presented in several different formats for analysis purposes.

Excerpts from FATIGUE SUBSTANTIATION OF MAIN ROTOR, TAIL ROTOR, AND CONTROL COMPONENTS FOR THE UH-1D/UH-1H HELI-COPTER, Bell Helicopter Company, Fort Worth, Texas; Bell Helicopter Report No. 205-099-135.

Federal Aviation Agency, ROTORCRAFT AIRWORTHINESS: NORMAL CATEGORY, Civil Aeronautics Manual 6, Appendix A, June 1962.

These formats include airspeed comparisons of the current UH-1H data with the CAM-6 data, the existing UH-1H fatigue spectrum, and the operational flight data for helicopters weighing less than 10,000 pounds. The recorded values of airspeed are presented in terms of $V_{\text{N}\text{P}}$ percentage.

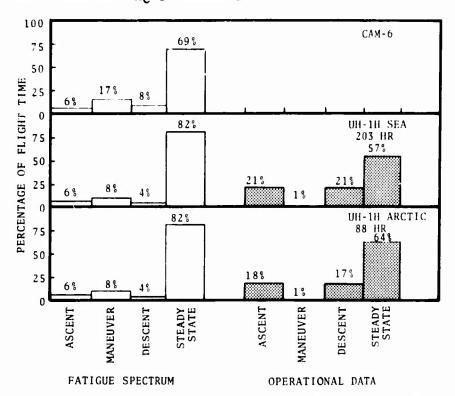


Figure 6. Comparison of Operational Data and Fatigue Spectra for UH-1H Helicopters.

With a breakdown by mission segment, Figure 7 distributes the cumulative airspeed frequency for the current UH-1H data; these data are listed in Table XLII of Appendix I. This figure indicates that the V_{n_e} limit was exceeded during the ascent, descent, and steady-state mission segments. The maximum observed airspeed was 129 knots, which occurred during the descent mission segment as depicted in Figure 8.

Figure 9 compares the cumulative airspeed frequency distribution for the Alaskan UH-1H data with that for the SEA UH-1H data. Except for the higher Alaskan data curve at the higher airspeeds, the two curves have generally the same shape.

Figure 10 compares the cumulative airspeed frequency distribution for the current UH-1H data with those for the CAM-6 spectrum and the UH-1H design fatigue spectrum. Below 83% $V_{\rm ne}$, the agreement between the current UH-1H data and the curves for the

two spectra is poor; but above 83% V_{ne} , the agreement between the current data and the curve for the UH-1H spectrum is good. If it is assumed that most of the fatigue damage occurs at higher airspeeds, then the CAM-6 and UH-1H fatigue spectra are not necessarily conservative.

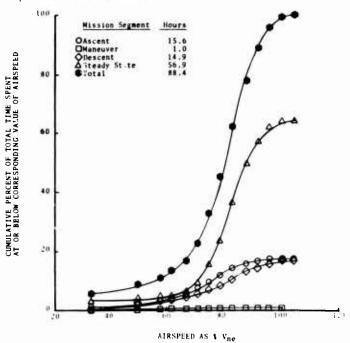


Figure 7. Cumulative Airspeed Frequency Distribution by Mission Segment for Current Alaskan UH-1H Data.

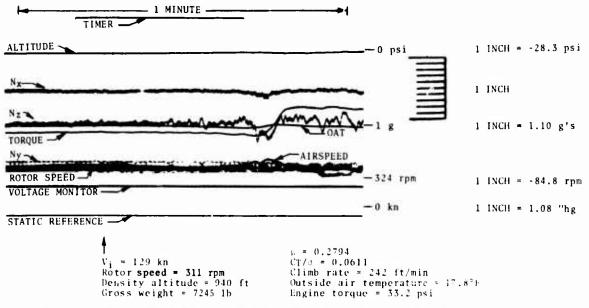


Figure 8. Oscillogram Showing Maximum Airspeed During Descent Mission Segment.

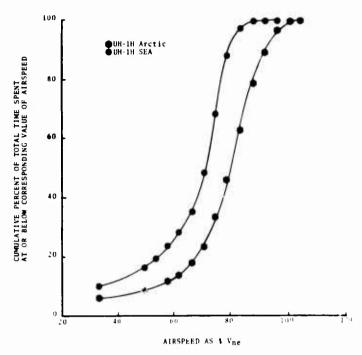


Figure 9. Comparison of Cumulative Airspeed Frequency Distribution for Current Alaskan UH-1H Data With That for Previous SEA UH-1H Data.

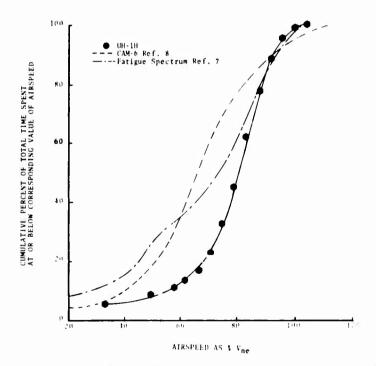


Figure 10. Cumulative Airspeed Frequency Distribution for Current Alaskan UII-1H Data Compared With Those for CAM-6 and Design Fatigue Spectra.

Figure 11 compares the cumulative airspeed frequency distribution for the current UH-1H data with data previously recorded for turbine-powered helicopters having design normal gross weights less than 10,000 pounds. To simplify this comparison, only the $\pm 1\sigma$ scatterband curves obtained by statistical analysis and presented in Reference 1 are shown. Above 85% V_{ne} , the current UH-1H data fall within the two curves; but below 85% V_{ne} , the current data fall below the lower scatterband, indicating that the Alaskan helicopters spent less time in these airspeed ranges than the time represented by the lower scatterband.

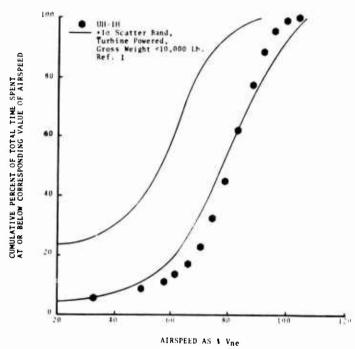


Figure .11. Cumulative Airspeed Frequency Distribution for Current Alaskan UH-1H Data Compared With Those for Spectra Representing Other Turbine-Powered Helicopters With Design Normal Gross Weight < 10,000 Lb.

Rotor Speed

With a breakdown by mission segment, Figure 12 presents in rpm ranges the cumulative rotor speed frequency distribution for the current UH-1H data. These data are listed in Table XLVII of Appendix I. Figure 12 shows that 66.4, 5.8, and 27.7 percent of the recorded flight time were acquired at rotor rpm's between 314 and 324, below 314 rpm, and above 324 rpm, respectively. The maximum rotor speed during the data acquisition program was 342 rpm; this rpm occurred during an autorotation (maneuver mission segment) as depicted in Figure 13.

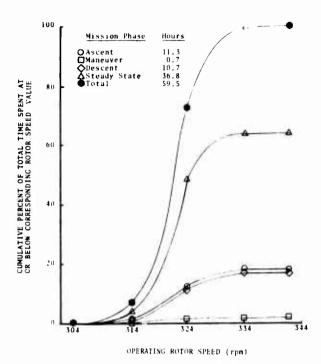


Figure 12. Cumulative Rotor Speed Frequency Distribution by Mission Segment for Current Alaskan UH-1H Data.

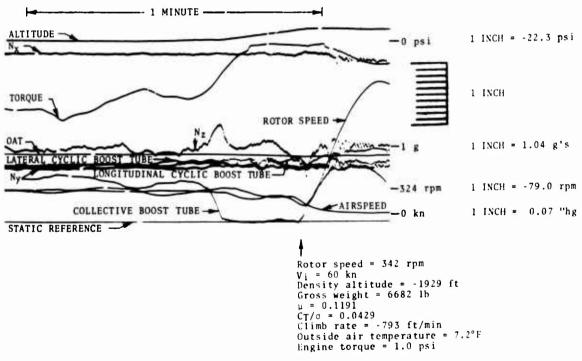


Figure 13. Oscillogram Showing Maximum Rotor Speed During Maneuver Mission Segment.

Figure 14 compares the cumulative rotor speed frequency distribution for the Alaskan UH-1H data with that for the SEA UH-1H data. Except for the higher Alaskan data curve at the lower rotor speeds, the two curves have generally the same shape.

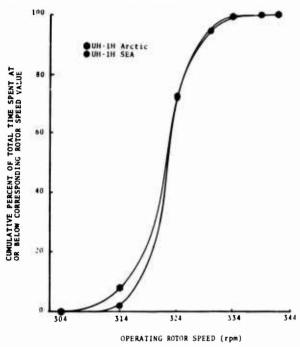


Figure 14. Comparison of Cumulative Rotor Speed Frequency Distribution for Current Alaskan UH-1H Data With That for Previous SEA UH-1H Data.

Gross Weight

With a breakdown by mission segment, Figure 15 presents the cumulative gross weight frequency distribution for the current UH-1H data in ranges of the ratio of operating gross weight to maximum design gross weight; these data are listed in Table XLVI of Appendix I. As apparent, the current UH-1H's spent approximately 15 percent of the flight time at gross weights at or in excess of the UH-1H maximum design gross weight. During this program, a helicopter flying a logistic support mission had the maximum gross weight of 10,161 pounds.

Figure 16 compares the cumulative gross weight frequency distribution for the Alaskan UH-1H data with that for the SEA UH-1H data. The two curves closely agree except at the higher gross weights where the Alaskan data curve is higher. About 4 percent of the flight time during the Alaskan operations was spent at gross weights above the design maximum. This high gross weight operation may be attributed to the greater power available at the low ambient temperatures and special mission requirements.

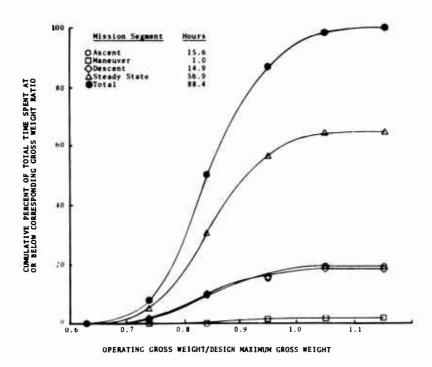


Figure 15. Cumulative Gross Weight Frequency Distribution by Mission Segment for Current Alaskan UH-1H Data.

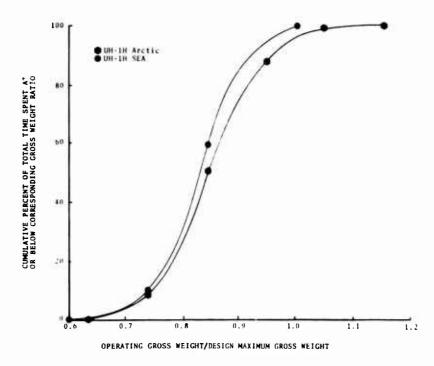


Figure 16. Comparison of Cumulative Gross Weight Frequency Distribution for Current Alaskan UH-1H Data With That for Previous SEA UH-1H Data.

Engine Torque

With a breakdown by mission segment, Figure 17 presents the cumulative engine torque frequency distribution for the current UH-1H data in ranges of the percentage of the maximum allowable torque; these data are listed in Table XLVI of Appendix I. The torque meter pressure at 100 percent is 50 psi.

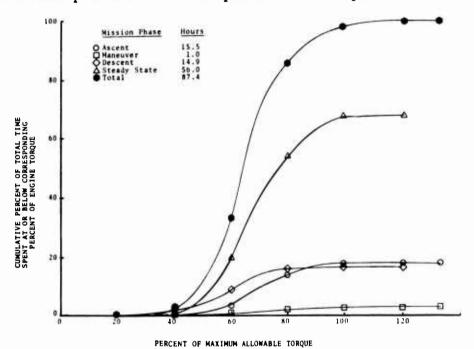
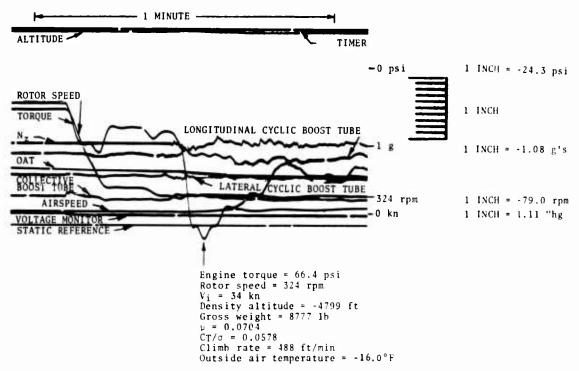


Figure 17. Cumulative Engine Torque Frequency Distribution by Mission Segment for Current Alaskan UH-1H Data.

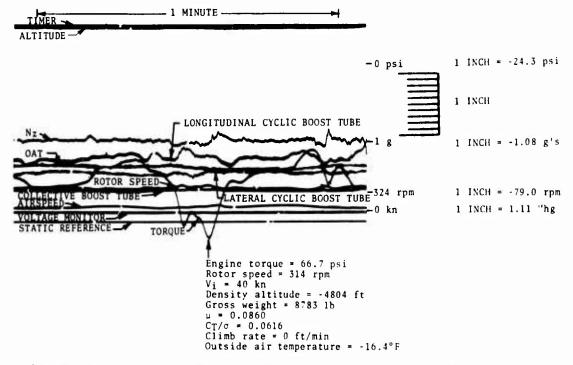
Figure 17 indicates that the current UH-1H's spent 92 percent of the flight time below 100 percent of the maximum allowable torque. Two percent of the time was spent between 100 and 120 percent, and one percent was spent at 133 percent or 67 psi.

Maximum torques of 66.4 and 66.7 psi were recorded during ascent and steady-state mission segments, as depicted in Figures 18a and 18b, respectively.

Figure 19 compares the cumulative engine torque frequency distribution for the Alaskan UH-1H data with that for the SEA UH-1H data. As apparent, the Alaskan UH-1H's spent more time at higher percentages of the maximum allowable torque. This condition would be expected since the lower ambient temperatures effectively provide more available power with which to exceed the transmission input limit. In addition, the operation at higher gross weights, as shown in Figure 16, would require higher power and therefore greater torque inputs.



a) Maximum Engine Torque During Ascent Mission Segment.



b) Maximum Engine Torque During Hover Mission Segment.

Figure 18. Oscillograms Showing Maximum Engine Torque.

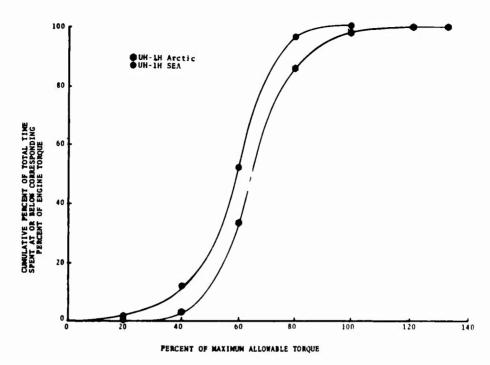


Figure 19. Comparison of Cumulative Engine Torque Frequency Distribution for Current Alaskan UH-1H Data With That for Previous SEA UH-1H Data.

Outside Air Temperature

Figure 20 compares the OAT frequency distribution for the Alaskan UH-1H data with that for the SEA UH-1H data; these data are listed in Table XLVII of Appendix I. As indicated, the temperatures in the Alaskan operations had a greater range than those in the SEA operations.

Altitude

With a breakdown by mission segment, Figure 21 presents in density altitude ranges the cumulative density altitude frequency distribution for the current UH-1H data; these data are listed in Table XLVIII of Appendix I. Figure 22 compares the cumulative density altitude frequency distribution for the Alaskan UH-1H data with that for the SEA UH-1H data. The Alaskan UH-1H's operated at lower density altitudes because of the lower ambient temperatures.

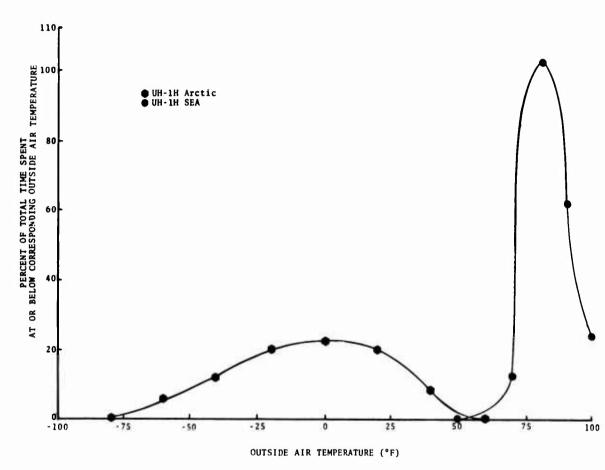


Figure 20. Comparison of Outside Air Temperature Frequency Distribution for Current Alaskan UH-1H Data With That for Previous SEA UH-1H Data.

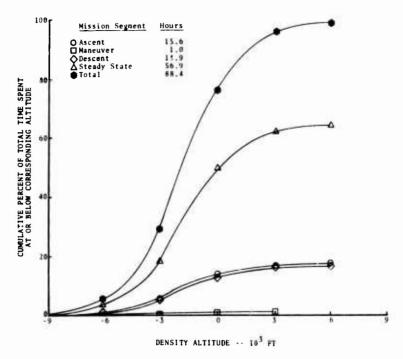


Figure 21. Cumulative Density Altitude Frequency Distribution by Mission Segment for Current Alaskan UH-1H Data.

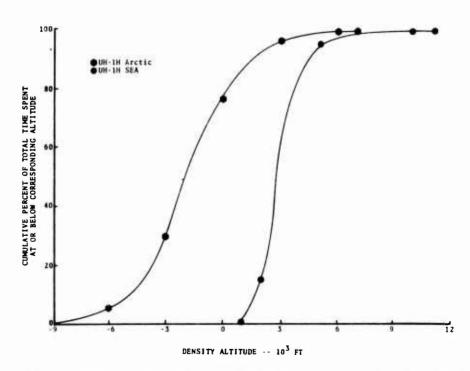


Figure 22. Comparison of Cumulative Density Altitude Frequency Distribution for Current Alaskan UH-1H Data With That for Previous SEA UH-1H Data.

Rate of Climb

With a breakdown by mission segment, Figure 23 presents the cumulative rate-of-climb frequency distribution for the current UH-1H data in rate-of-climb ranges. The rate-of-climb data were converted into the "or more" type of frequency distributions by cumulatively summing the percentages of time for each rate-of-climb range, starting at the highest positive or negative rate-of-climb value and continuing to the ±300 feet-per-minute threshold value. The basic data, prior to summation, are presented in Table XLVII of Appendix I. Because of the basic definitions used to categorize the flight data into the four mission segments, some ascent time is included in the negative rate-of-climb data and some descent time is included in the positive rate-of-climb data.

Figure 24 compares the cumulative rate-of-climb frequency distribution for the Alaskan UH-1H data with that for the SEA UH-1H data. Although the Alaskan UH-1H's had higher rates of climb, they spent less time in ascent and descent.

Figure 25 compares the cumulative rate-of-climb frequency distribution for the current UH-1H's with that for other turbine-powered helicopters having a normal design gross weight of less than 10,000 pounds. The current UH-1H data for positive rates of climb fall within the scatterbands; however, the data for negative rates of climb fall outside the lower scatterband. For both positive and negative rates of climb, the rate of ascent or descent was relatively low.

Porterfield, John D., and Maloney, Paul F., EVALUATION OF HELICOPTER FLIGHT SPECTRUM DATA, Kaman Aircraft Division, Kaman Corporation, Bloomfield, Connecticut; USAAVLABS Technical Report 68-68, U.S. Army Aviation Materiel Laboratories, Fort Eustis, Virginia, October 1968, AD 680 280.

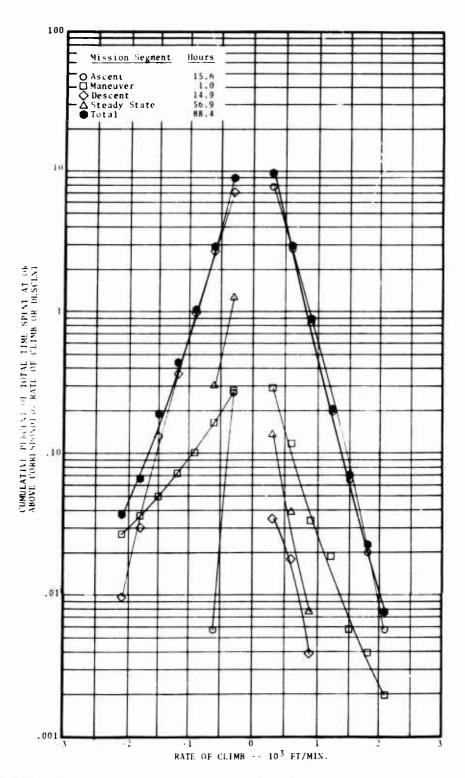


Figure 23. Cumulative Rate-of-Climb Frequency Distribution by Mission Segment for Current Alaskan UH-1H Data.

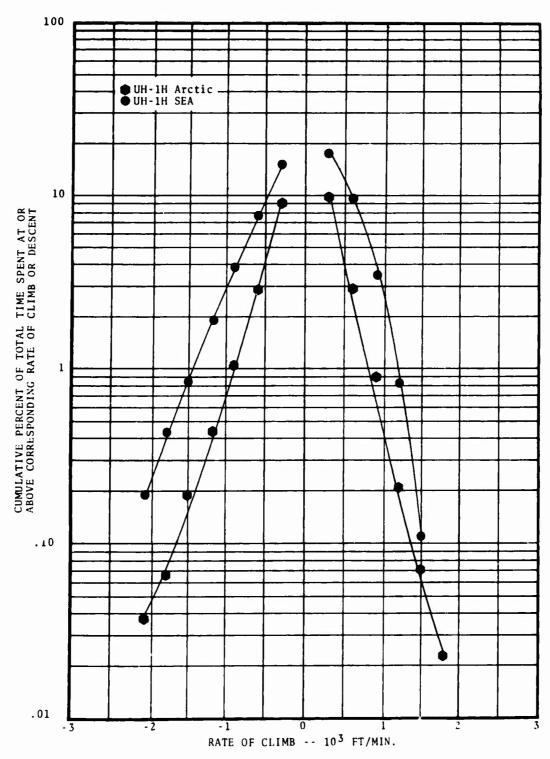


Figure 24. Comparison of Cumulative Rate-of-Climb Frequency Distribution for Current Alaskan UH-1H Data With That for Previous SEA UH-1H Data.

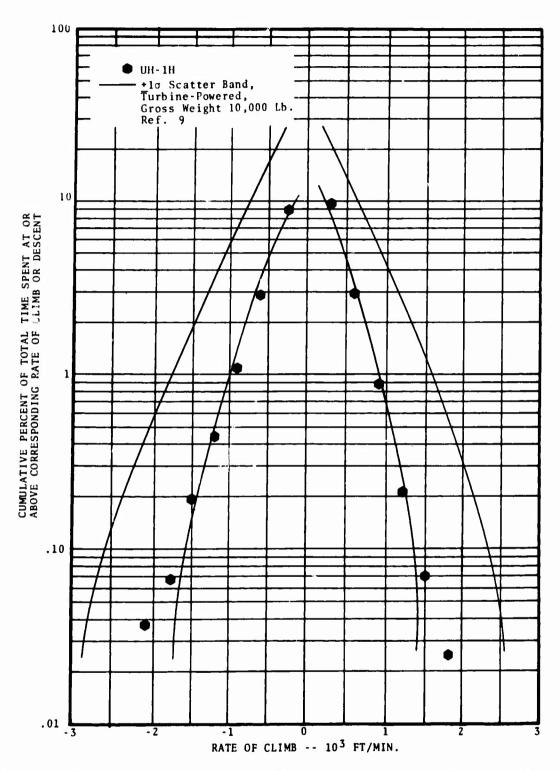


Figure 25. Cumulative Rate-of-Climb Frequency Distribution for Current Alaskan UH-1H Data Compared With Those for Spectra Representing Other Turbine-Powered Helicopters With Design Gross Weight < 10,000 Lb.

Normal (Vertical) Load Factor

Both positive and negative vertical acceleration peaks recorded by the current UH-1H helicopters are presented as normal load factors in several different ways for both gust and maneuver conditions. The peaks caused by gust conditions are compared with ±1σ scatterbands for all helicopters, and those caused by maneuvers and distributed in gross weight and rotor tip speed ranges are compared similarly with airspeed.

Three different types of exceedance curves were used to present the data in the formats discussed above. The basic vertical acceleration data for gust and maneuver conditions are presented in terms of "hours to reach or exceed" a given normal load factor level. The comparisons of either the gust or the maneuver data are presented as the cumulative number of normal load factors per 100 hours experienced at or in excess of each of the given Δn_z levels; these numbers were obtained by cumulatively summing the occurrences of normal acceleration peaks, starting at the largest positive or negative peak, and then converting the values of these occurrences to cumulative normal load factors per 100 hours. The format for comparing the cumulative normal load factors with airspeed is similarly based on the cumulative number of normal load factors per 100 hours experienced at or below each of the given airspeed levels. The airspeed values were expressed in terms of the percentage of V_{ne} , which is 120 knots for the UH-1H helicopter.

Figure 26 presents the composite exceedance curve of gust-induced incremental normal load factors for the current UH-1H data. As apparent, the negative peaks were generally larger and occurred slightly more frequently than the positive peaks. In contrast to the data presented in Reference 1, the magnitudes of the gust-induced peaks were similar to those of the maneuver-induced peaks, as seen in Figure 31.

Oscillogram segments of the maximum and minimum gust-induced n_z peaks are presented in Figure 27. Coincident parameter values are presented for each of these gust conditions.

Figure 28 compares the cumulative gust-induced normal load factor frequency distribution of the current UH-1H data with the ±1σ scatterband curves derived in Reference 9 for similar data for all turbine-powered helicopters. This figure indicates that the current data fall within the derived scatterbands.

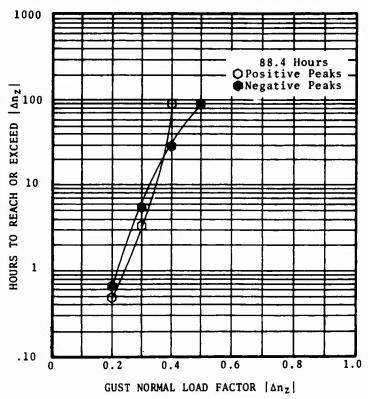
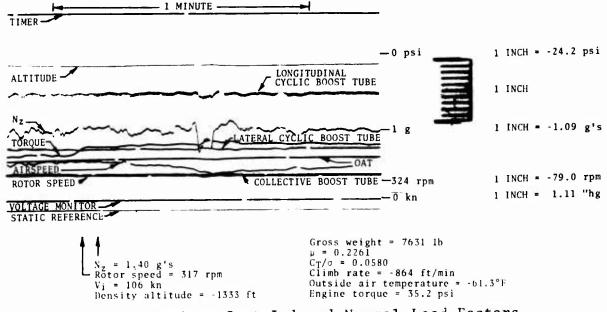
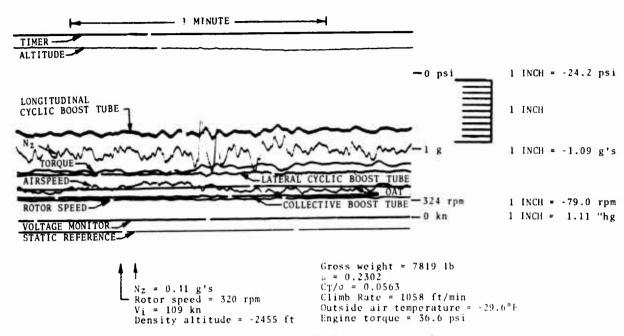


Figure 26. Composite Exceedance Curve for Incremental Gust Normal Load Factor Peak in Current Alaskan UH-1H Data.



a) Maximum Gust-Induced Normal Load Factors

Figure 27. Oscillograms Showing Gust-Induced Maximum and Minimum Incremental Normal Load Factors.



b) Minimum Gust-Induced Normal Load Factors



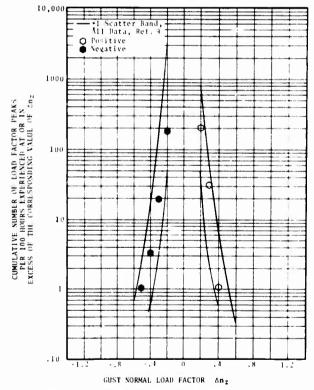


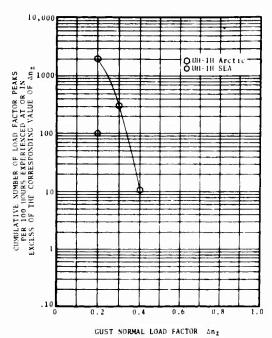
Figure 28. Cumulative Gust-Induced Normal Load Factor Distribution for Current Alaskan UH-1H Data Compared With Those for All Other Turbine-Powered Helicopter Data.

Figures 29 and 30 compare the cumulative gust-induced positive and negative normal load factor frequency distributions for the Alaskan UH-1H data with those for the SEA UH-1H data. As evident in both figures, the gust-induced loads for the Alaskan UH-1H's were greater in both frequency and magnitude than those for the SEA UH-1H's.

Figure 29.

10,000

Cumulative Gust-Induced Positive Normal Load Factor Frequency Distribution for Current Alaskan UH-1H Data Compared With That for Previous SEA UH-1H Data.



CUMULATIVE NUMBER OF LOAD FACTOR PEAKS
PER 100 HOURS EXPERIENCED AT OR IN
EXCESS OF THE CORRESPONDING VALUE OF THE
CORRESPONDING VALUE OF THE
-0.6

GUST NORMAL LOAD FACTOR Anz

Figure 30.

Cumulative Gust-Induced Negative Normal Load Factor Frequency Distribution for Current Alaskan UH-1H Data Compared With That for Previous SEA UH-1H Data.

With a breakdown by mission segment, Figure 31 presents exceedance curves of maneuver-induced incremental normal load factors for the current UH-1H data. In general, slightly more positive normal load factors were experienced during all mission segments than negative peaks. Also, both positive and negative peaks occurred most frequently in the maneuver mission segment. The occurrences of positive and negative peaks in the ascent and descent mission segments were nearly identical. Fewer positive and negative peaks occurred in the steady-state mission segment. The largest positive peak of 0.5g and the largest negative peak of 0.4g occurred during all mission segments. Finally, the composite maneuver-induced normal load factor curve in Figure 31e indicates that the positive and negative peaks in the current UH-1H data attained nearly the same magnitude.

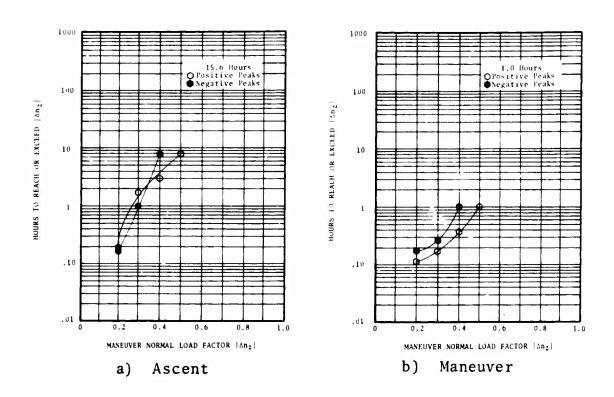
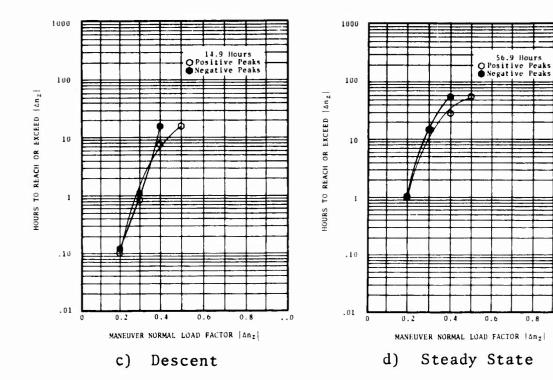


Figure 31. Exceedance Curves for Incremental Maneuver Normal Load Factor Peaks by Mission Segment for Current Alaskan UH-1H Data.



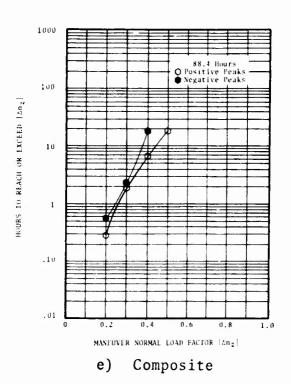
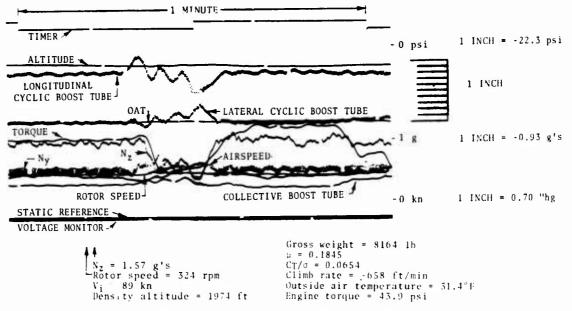
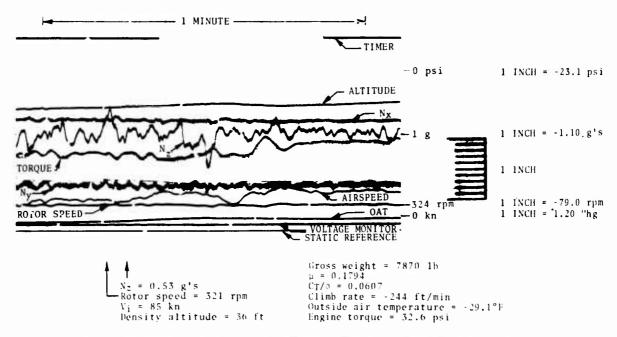


Figure 31 - Concluded.

Oscillogram segments of the maximum and minimum maneuver-induced n_z peaks are presented in Figure 32. Coincident parameter values are presented for each of these maneuvers.



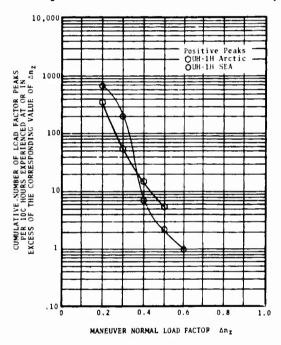
a) Maximum Maneuver-Induced Normal Load Factors



b) Minimum Maneuver-Induced Normal Load Factors

Figure 32. Oscillograms Showing Maneuver-Induced Maximum and Minimum Incremental Normal Load Factors.

Figures 33 and 34 compare the cumulative positive and negative normal load factor curves for the Alaskan UH-1H data with those for the SEA UH-1H data to determine similarities during maneuvering flight. As discussed above, these curves were constructed by cumulatively summing the occurrences of normal acceleration peaks, starting at the largest positive or negative peak, and then converting the values of these occurrences to cumulative normal load factors per 100 hours. Figure 33 compares the positive normal load factors for the Alaskan UH-1H data with those for the SEA UH-1H data. Although the normal load factors have a slightly higher frequency in the Alaskan data, they have a slightly greater magnitude in the SEA data. In contrast, Figure 34 for the negative normal load factors shows that the normal load factors for the SEA data have a much greater magnitude than those for the Alaskan data; but up to 0.4 Δn_z , the factors for the two sets of data closely agree in frequency and magnitude. The higher incidence of gust-induced normal load factors in the Alaskan data was due to the high wind velocities in the mountain passes of the Fort Greely area.



igure 33. Cumulative Maneuver-Induced Positive Normal Load Factor Frequency Distribution for Current Alaskan UH-1H Data Compared With That for Previous SEA UH-1H Data.

Throughout the entire range of positive and negative normal load factors, the Alaskan UH-1H helicopters experienced more gust-induced loads but less maneuver-induced loads than the SEA UH-1H helicopters.

Figure 34.

Cumulative Maneuver-Induced Negative Normal Load Factor Frequency Distribution for Current Alaskan UH-1H Data Compared With That for Previous SEA UH-1H Data.

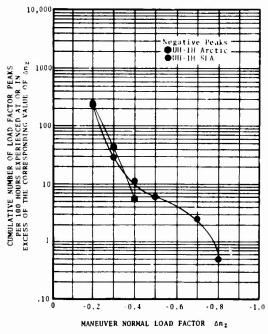


Figure 35 compares the cumulative maneuver-induced normal load factor frequency distributions of the current UH-1H data with the $\pm 1\sigma$ scatterband curves derived in Reference 9 for similar data for all turbine-powered helicopters. As apparent, both distributions are within these scatterbands.

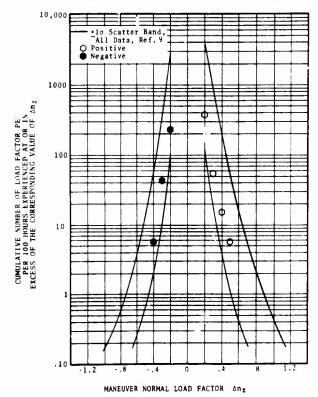


Figure 35.

Cumulative ManeuverInduced Normal Load
Factor Frequency Distribution for Current
Alaskan UH-1H Data
Compared With That for
Spectra Representing
All Other TurbinePowered Helicopter Data.

With a breakdown by gross weight ranges, Figure 36 presents exceedance curves of maneuver-induced normal load factors for the current UH-1H data. The rate of positive normal load factor occurrences or its inverse, the hours to reach or exceed a given Δn_z , was similar for the gross weight ranges of 6000 to 7000, 7000 to 8000, and 8000 to 9000 pounds. Within the 9,000- to 10,000 pound range, positive normal load factors occurred less often than in the other weight ranges and did not exceed 0.3g. In contrast, the range of negative Δn_z 's decreased as the gross weight increased. The rate of negative normal load factor occurrences was practically the same for the weight ranges of 6000 to 7000, 7000 to 8000, and 8000 to 9000 pounds. Within the weight range of 9,000 to 10,000 pounds, the negative load factors occurred less often than in the other weight ranges and did not exceed 0.3g.

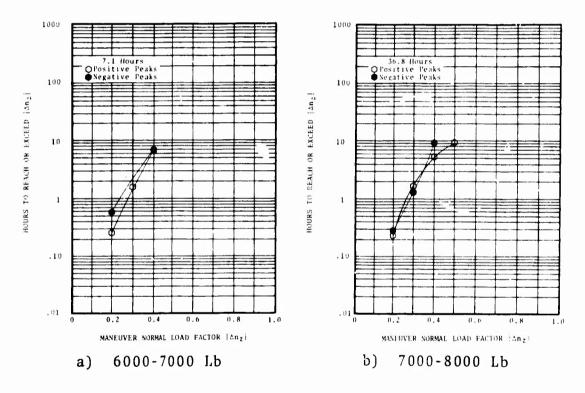


Figure 36. Exceedance Curves for Maneuver-Induced Incremental Normal Load Factors by Gross Weight Range.

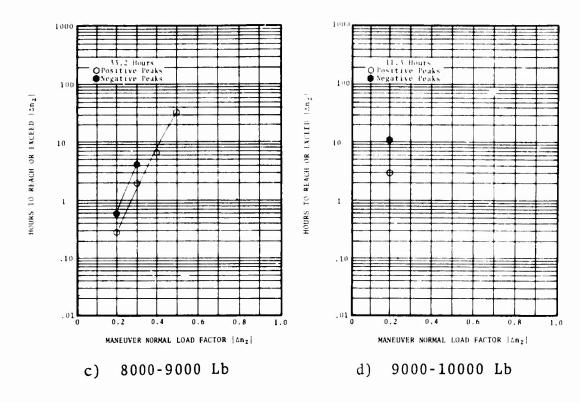


Figure 36 - Concluded.

The cumulative normal load factor frequency distribution by airspeed for the current UH-1H data is presented in Figure 37. The frequency of normal load factors is expressed as the cumulative number of gust- and maneuver-induced normal load factors per 100 hours experienced at or below the corresponding airspeed level expressed in percentage of V_{n_e} . As indicated in this figure, for all airspeed ranges, the lower magnitude incremental normal load factors were more frequent than the higher magnitude peaks and the positive peaks and the negative peaks of a given magnitude above 0.3g were similar in number. Further, both the positive and the negative load factors occurred most frequently in the V_{ne} range of 62 to 83 percent.

Figure 38 compares the cumulative normal load factor frequency distribution by airspeed for the Alaskan UH-1H data with that for the SEA UH-1H data. The two distributions are quite similar for the various magnitudes of normal load factor except for $\Delta n_{\mathbf{Z}}$'s corresponding to 0.3g and 0.4g. In these two ranges, the positive peak occurrences per 100 hours of flight for the SEA UH-1H helicopters were distinctly greater than those for the Alaskan operations.

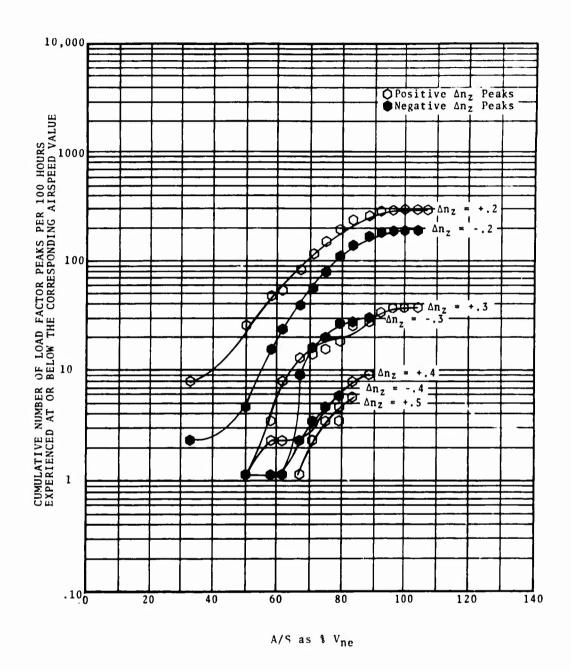


Figure 37. Composite Cumulative Normal Load Factor Frequency Distribution by Airspeed for Current Alaskan UH-1H Data.

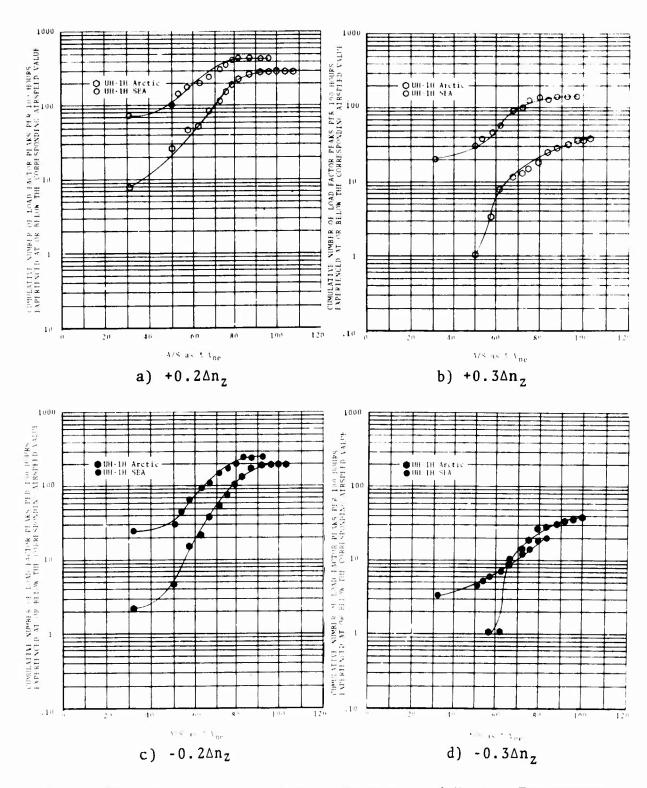


Figure 38. Composite Cumulative Normal Load Factor Frequency Distribution for Current Alaskan UH-1H Data Compared With That for Previous SEA UH-1H Data.

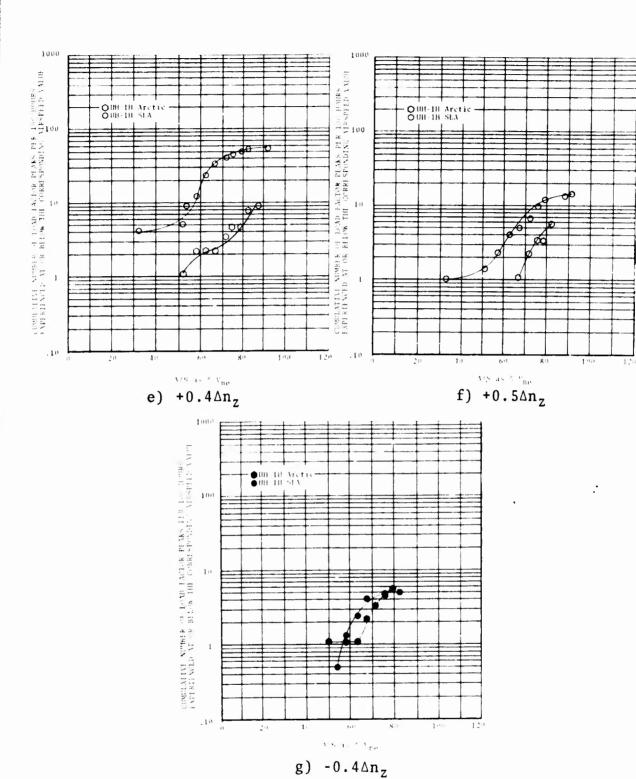


Figure 38 - Concluded.

The normal load factor data discussed above are listed in Tables LV through LVIII. In addition to the normal load factor data, longitudinal and lateral load factor, $n_{\rm X}$ and $n_{\rm Y}$, data are presented in Tables LIX through LXIV of Appendix I. The frequency of gust $n_{\rm Z}$'s in the coincident ranges of $n_{\rm Z}$ and μ and in the coincident ranges of $n_{\rm Z}$ and airspeed are presented in Tables LV and LVI, respectively. For the foregoing data, Table LV has mission segment, altitude, and $C_{\rm T}/\sigma$ breakdowns; and Table LVI has weight, altitude, and mission segment breakdowns. Maneuver $n_{\rm Z}$ peaks are presented similarly in Tables LVII and LVIII.

Tables LIX, LX, and LXI present $n_{\rm X}$ peaks in $n_{\rm X}$ versus airspeed ranges by weight, versus airspeed ranges by altitude, and versus longitudinal cyclic boost tube load ranges by mission segment, respectively. Tables LXII, LXIII, and LXIV present $n_{\rm Y}$ frequencies in $n_{\rm Y}$ versus airspeed ranges by weight, versus airspeed ranges by altitude, and versus lateral cyclic boost tube load ranges by mission segment, respectively. Tables LXV through LXX present $n_{\rm X}$, $n_{\rm Y}$, and $n_{\rm Z}$ frequencies in the coincident ranges of two of these parameters in various combinations.

Boost Tube Load and Other Parameters

The axial mean load of the longitudinal, lateral, and collective tubes were measured and recorded. These loads were recorded to continue the formulation of a data base for the future analysis of control forces to determine whether these forces may be used as an indicator of fatigue damage.

As discussed in the Instrumentation section, the three control boost tubes were strain-gaged to record axial loads experienced by the tubes. Because of the relatively high frequency of the boost tube loads and the low frequency response of the oscillograph recording system, the strain gage signals were filtered so that only the mean strain value of each boost tube was recorded.

Because of the larger shifts in the mean load experienced by the boost tubes in the cold environment, the normal values used in processing the data in the transient mission segments were the values derived from the loads occurring during the appropriate hover condition. Consequently, the data presented in Tables XLVIII through LIV represent the delta boost tube loads which occurred above or below the hover condition. Therefore, no graphical presentations of the boost tube loads have been included.

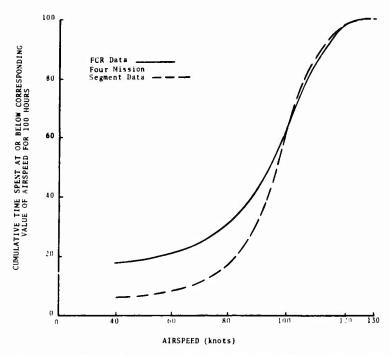
By using the procedures discussed in the Data Definitions section, the digitized n_Z peaks for the UH-1H were converted into equivalent normal load factors. These data are presented in Table 3 LXXI and LXXII.

Tables XLV, LV, and LVII present the data for the C_T/σ and μ parameters which were derived by the procedures discussed in the Data Definition section.

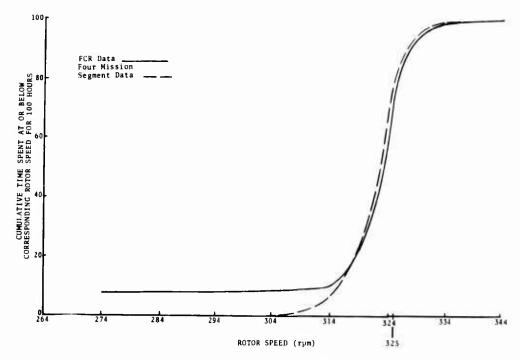
FCR DATA PRESENTATION

The following presentation of the 36 hours processed by the FCR technique is divided into two basic categories of mission segments and flight conditions. The mission segment section will discuss the seven segments and the data describing their occurrence. The second section will present the data describing the 20 of the 24 flight conditions observed during this operational survey.

Except for the cumulative frequency distributions of airspeed, rotor speed, gross weight, engine torque, density altitude, rate of climb, gust normal load factor, and maneuver normal load factor presented in Figure 39, the FCR and the Four Mission Segment data are not directly compared. These various distributions are presented to show that the small sample of 36 hours is reasonably representative of the 88 hours of Four Mission Segment data. In most cases, the curves are very similar; however, for the FCR data, more time was spent at the very low ranges of airspeed and rotor speed because of the inclusion of rotor starts and stops and ground operation. One other point of interest concerns the processing of gust and maneuver n_z peaks. During the FCR processing, a number of peaks identified as maneuver-induced during the Four Mission Segment processing were changed to gust-induced peaks. These changes were based on the lack of related flight conditions during the occurrence of the n_z peak.

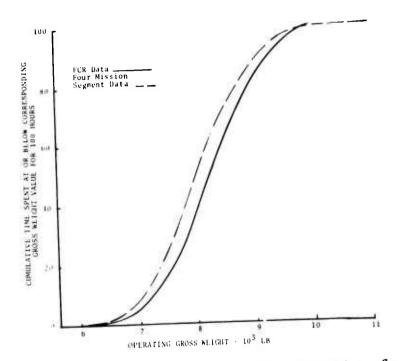


a) Cumulative Frequency Distribution for Airspeed.

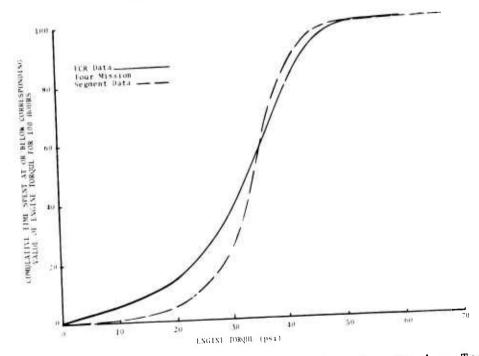


b) Cumulative Frequency Distribution for Rotor Speed.

Figure 39. Comparison of Four Mission Segment Data With FCR Data for Various Parameters.

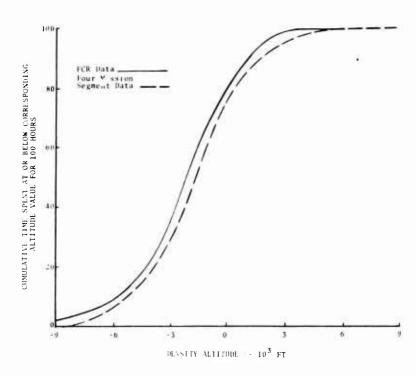


c) Cumulative Frequency Distribution for Operating Gross Weight.



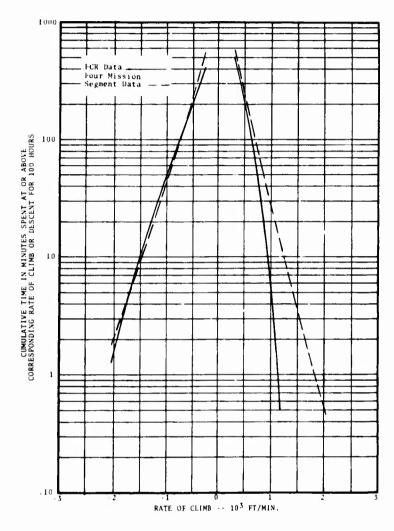
d) Cumulative Frequency Distribution for Engine Torque.

Figure 39 - Continued.



e) Cumulative Frequency Distribution for Density Altitude.

Figure 39 - Continued.



The state of the s

f) Cumulative Frequency Distribution for Rate of Climb.

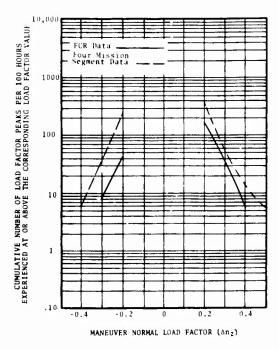
Figure 39 - Continued.

COMMITTIVE NUMBER OF LOAD FACTOR PEAKS PER 100 HOURS

FOR Data

FO

g) Cumulative Gust-Induced Normal Load Factor Distribution.



h) Cumulative Maneuver-Induced Normal Load Factor Distribution.

Figure 39 - Concluded.

Mission Segments

In the following paragraphs, each of the seven mission segments is discussed in detail. Figure 40 presents a histogram of the percentage of time spent in each of the segments.

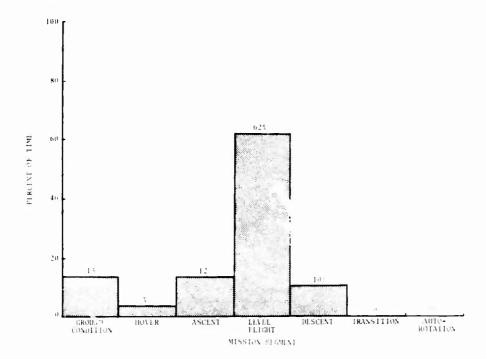


Figure 40. Percentage of Time Spent in FCR Mission Segments.

Ground Operation

Within the ground operation mission segment, three types of conditions were differentiated: ground taxi, steady state, and transient. Ground taxi occurred 16 times and lasted an average of 33 seconds. This ground operating condition is valid for the UH-1H helicopter since the surveyed helicopters were equipped with skis. Steady state occurred 154 times and lasted 83 seconds on the average. The transient conditions, during which engine torque varied rapidly, occurred 201 times and lasted an average of 18 seconds. At least one transient condition occurred after each rotor start and before each rotor stop; some of the other transients occurred during the ground operation between flights. These data are presented as histograms in Figure 41 and are listed in Tables LXXIV, LXXXIII, LXXXVII, XCIII, XCIV, XCVII, CIX, and CXIII of Appendix II.

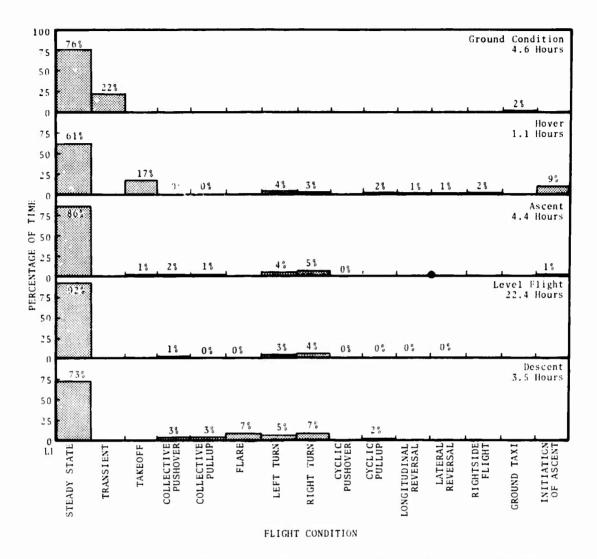


Figure 41. Percentage of Time Spent in Flight Conditions by FCR Mission Segment.

Hover

Within the hover mission segment, eight distinct types of maneuvers were observed. These maneuvers may be categorized into three board classes: change in mission segment, gustinduced, and nongust-induced. The first category consists of takeoff and initiation of ascent. Takeoffs to hover, all initiated from ground operation, occurred 46 times and lasted for an average of 14.6 seconds. Initiation of ascent was the maneuver which began in a hover and resulted in an ascending climb. Consisting of the simultaneous application of forward cyclic and increased collective control movements, the initiation of ascent occurred 37 times and lasted for an average of

10 seconds. The gust-induced maneuvers - collective pushovers and pull-ups, cyclic pull-ups, and longitudinal and rudder reversals - were maneuvers which opposed the effects of
wind gusts during the hovers. Their frequency of occurrence
and average duration are shown in Table V. The nongustinduced maneuvers consisted of left and right turns and right
sideward flight. Seven left turns, six right turns, and two
right sideward flights occurred with average durations of 20,
22, and 34 seconds, respectively. These data are presented
as histograms in Figure 41 and are listed in Tables LXXIII,
LXXV through LXXXI, LXXXIV through LXXXVI, XCV, XCVI, CI
through CIV, CVI, CVII, and CIX through CXII of Appendix II.

TABLE V. GUST-I	NDUCED FLIGHT CONDITION	IN HOVER
Flight Condition	Occurrences	Ave. Duration (sec)
Collective Pushover	1	5.4
Collective Pull-up	1	5.4
Cyclic Pull-up	8	11.6
Longitudinal Reversal	4	8.7
Lateral Reversal	2	7.2

Ascent

Within the ascent mission segment, seven types of maneuvers occurred besides the steady-state condition. These maneuvers or flight conditions may be divided into three classes of maneuvers: those which would initiate or increase the rate of climb, those which would decrease or stop the rate of climb, and those which would not affect the rate of climb.

The first category consisted of takeoff, initiation of ascent, and collective pull-up flight conditions. Takeoffs to the ascent mission segment, all initiated from ground operations, occurred 20 times and lasted an average of 10.5 seconds. Initiation of ascent was the maneuver which followed the takeoff flight condition and resulted in an ascending climb. Consisting of the simultaneous application of forward cyclic and increased collective control movements, the initiation of ascent occurred 17 times and lasted an average of 11 seconds. The remaining three maneuvers following the takeoff were climbing turns. Seven collective pull-ups, each lasting approximately 5 seconds, were performed during the Ascent mission segment; however, all of these maneuvers were mild since no n_z peaks outside the editing threshold were observed.

The second category consisted of collective and cyclic pushovers. Of the maneuvers recorded in this category, 31 were collective pushovers which had an average duration of 16 seconds, and one was a cyclic pushover which lasted 10 seconds. All of these pushovers were mild. Only one collective pushover generated a normal load factor outside the threshold; the corresponding acceleration peak reached the range of 0.7g to 0.8g and lasted 1.2 seconds. This collective pushover also caused a positive normal load factor between 1.2g and 1.3g during the recovery.

The third category consisted of left and right turns during a climb. The time in the ascent mission segment, 4 percent was spent in performing 20 left turns which had a 28-second average duration, and 5 percent was spent in performing 30 right turns which had a 29-second average duration. Forty percent of the left turns and 27 percent of the right turns generated normal acceleration peaks outside the smaller editing threshold of 0.9g to 1.1g. The maximum n_Z peak for the left turns was between 1.2g and 1.3g, and that for right turns was between 1.3g and 1.4g.

Approximately 86 percent of the ascent mission segment was spent in the steady-state flight condition. With a breakdown by gross weight, Table VI summarizes the maximum and minimum values of several selected parameters. These data, as well as the data discussed above, were extracted from Tables LXXIII, LXXXV through LXXX, LXXXIII, LXXXVIII, XCV, XCVIII, CI'through CVII, CIX, CXI, and CXII of Appendix II.

TABL		SELECTED PARAMETERS FE OPERATION IN ASCE	
Gross Weight (1b)	Airspeed Range (kn)	Main Rotor Speed Range (rpm)	Main Rate of Climb (ft/min)
6000	0 to 120	314 to 334	900
7000	0 to 110	294 to 334	900
8000	0 to 105	304 to 334	900
9000	0 to 105	314 to 324	900

Level Flight

Within the level flight mission segment, ten distinct types of maneuvers were observed. These maneuvers may be categorized into three broad classes: change in mission segment, gustinduced, and nongust-induced.

The first category consisted of six maneuvers which caused a change in mission segment by initiating an ascent or a de-An ascent was initiated by a collective or cyclic pull-up. Such ascents were caused by 34 collective pull-ups which lasted 10 seconds on the average and 15 cyclic pullups which lasted 13 seconds on the average. Of the n_z peaks from the collective pull-ups, the maximum was between 1.3g and 1.4g, its duration above the 1.1g threshold was 1.2 seconds, and the corresponding pull-up lasted 10 seconds. the nz peaks from the cyclic pull-ups, two were between 1.4g and 1.5g and lasted for a total of 24 seconds, of which 12.4 seconds was spent above the load factor threshold. A descent from level flight was initiated by a collective or cyclic pushover or by a low-altitude flare. Such descents were caused by 84 collective pushovers which had a 9-second average duration, 6 cyclic pushovers which had an 11-second average duration, and two low-altitude flares which had a 12second average duration. Of the collective pushovers, live generated nz peaks which were between 0.6g and 0.7g and lasted for a total of 4.8 seconds. Of the cyclic pushovers, all were mild, none generating nz peaks outside the threshold. The two low-altitude flares, which were not classified in the descent mission segment because the altitude did not change perceptibly, did not generate n_z peaks outside the threshold. In addition to the above maneuvers which caused changes in mission segment from level flight to ascent, descent, or ground operations, 106 maneuvers, identified as mission segment variations, occurred. Since these maneuvers were very mild pushovers or pull-ups where the control movement was generally less than 10 percent of full travel and no nz peaks exceeded the threshold, the time of these maneuvers was placed in the steady-state category during the data processing.

The second category, gust-induced maneuvers, consisted of longitudinal and lateral control reversals. As indicated in Table III, these maneuvers were caused by control deflections that were more than 10 percent of the full-control deflection and were not related to another flight condition; in general, the \mathbf{n}_{z} and airspeed traces both indicated gusty conditions. Of these maneuvers, four were caused by longitudinal control reversals and three by lateral control reversals, both reversals had an 8-second average duration. All of the reversals were mild, none generating \mathbf{n}_{z} peaks outside the editing threshold.

The third category, nongust-induced maneuvers, consisted of left and right turns which occurred during level flight. Of the time in the level-flight segment, 3 percent was spent in performing 71 left turns which lasted 29 seconds on the average, and 4 percent

was spent in performing 111 right turns which lasted 27 seconds on the average. Twenty-one percent of the left turns and 35 percent of the right turns generated normal accelerations outside the smaller editing threshold of 0.9g to 1.1g. The maximum n_z peak for the left turn was between 1.2g and 1.3g, and the maximum for right turns was between 1.3g and 1.4g.

Approximately 92 percent of the time in the level-flight mission segment was spent in the steady-state flight condition. With a breakdown by gross weight, Table VII summarizes the maximum and minimum values of several selected parameters. These data, as well as the data discussed above, were extracted from Tables LXXVI through LXXXIII, LXXXV, LXXXVI, LXXXVIII, XCV, XCVI, XCVIII through C, CIII through CIX, and CXI of Appendix II.

TABLE V		LECTED PARAMETERS I OPERATION IN LEVEL	
Gross Weight (1b)	Airspeed Range (kn)	Density Alti- tude Range (ft)	OAT Range (°F)
6000	0 to 125	-6000 to 0	-80 to 0
7000	0 to 115	-6000 to 6000	-80 to 20
8000	0 to 110	below 0 to 0	-80 to 40
9000	40 to 120	below 0 to 0	-80 to 0

Descent

Within the descent mission segment, six types of maneuvers occurred besides the steady-state operation. These maneuvers may be divided into three classes: those which would initiate or increase the rate of descent, those which would decrease or stop the rate of descent, and those which do not affect the rate of descent. The first category consisted only of collective pushover during the subject program. Such collective pushovers occurred 23 times with a 14-second average duration and accounted for 3 percent of the time in the descent mission segment.

The second category consisted of collective pull-ups, cycle pull-ups, and flares. Of these maneuvers, 38 were collective pull-ups which had a 9-second average duration and accounted for 3 percent of the segment time; 13 were cyclic pull-ups which had a 19-second average duration and accounted for 2 percent of the segment time; and 51 were flares which had an 18-second average duration and accounted for 7 percent of the segment time.

The third category included left and right turns. Of these maneuvers, 19 were left turns which lasted 33 seconds on the average, and 29 were right turns which lasted 30 seconds on the average. Twenty-six percent of the left turns and 45 percent of the right turns generated n_z peaks outside the smaller threshold between 0.9g and 1.1g. The maximum n_z peak for the left turns was between 0.7g and 0.8g, and that for right turns was between 0.5g and 0.6g.

Approximately 73 percent of the descent mission segment was spent in the steady-state flight condition. With a breakdown by gross weight, Table VIII summarizes the maximum and minimum values of several selected parameters. These data, as well as the data discussed above, were extracted from Tables LXXVI through LXXXIII, LXXXVI, LXXXVIII, and CII through CIX in Appendix II.

TABL		OF SELECTED PARAMETE STATE OPERATION IN DE	
Gross Weight (1b)	Airspeed Range (kn)	Main Rotor Speed Range (rpm)	Max. Rate of Descent (ft/min)
6000	40 to 95	314 to 325	1500
7000	0 to 120	314 to 325	2100
8000	0 to 110	314 to 325	1200
9000	0 to 120	314 to 325	2100

Transition and Autorotation

The editing criterion, as it was finally defined, identified the transition mission segment as occurring before and after the autorotation mission segment. The entry into and the recovery from the autorotation were the only flight conditions occurring in the transition segment. Consequently, the transition mission segment should be eliminated; the entry into and the recovery from an autorotation should be classified as a flight condition within the autorotation mission segment in future programs.

Two autorotations occurred during the initial flight test program of the subject survey. Consequently, these two occurrences were not considered as representative of the arctic operation and are not discussed in the data presentation. However, for general information, an oscillogram section of one of these autorotations is presented in Figure 42. In addition, the data for these two occurrences are summarized in Tables LXXXIII, LXXXVII, XCII, and CXIII of Appendix II.

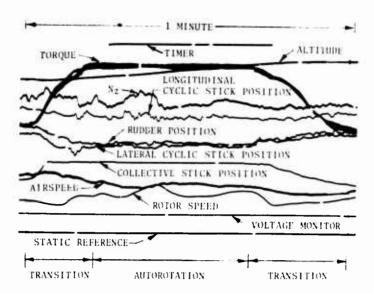


Figure 42. Oscillogram Showing Transition and Autorotation.

FLIGHT CONDITIONS

Of the 24 flight conditions defined in Table III, 20 were observed and used during the FCR data processing. These conditions are categorized as events, sustained conditions, or transient conditions. The events include the conditions of rotor start, takeoff, touchdown, rotor stop, ground taxi, mission segment variation, begins in flight, and ends in flight. The sustained flight conditions are such maneuvers as initiation of ascent, left and right turns, cyclic and collective pushovers, cyclic and collective pull-ups, flares, and steady flight. The last group of conditions, transients, includes right sideward flight, lateral reversals, and transient condition during ground operations. Each of the flight conditions will be discussed in the following paragraphs. Figure 41 summarizes the percentage of time spent in the various flight conditions by mission segment.

Rotor Starts and Stops

The rotor start flight condition was counted as an occurrence when the main rotor speed exceeded 264 rpm. Thirty-three starts, all occurring in the ground operation segment, were recorded during the 36 hours of data processed by the FCR technique. These starts were fairly evenly divided among the gross weight ranges of 7,000 pounds and higher, as presented in Figure 43.

The rotor stop condition was counted as an occurrence when the main rotor speed dropped below 264 rpm and electrical power ceased. Only 29 rotor stops were recorded during the survey. The difference of four between the number of starts and stops

was caused by jammed oscillogram magazines or magazines exhausting of paper in flight. All of the rotor stops occurred in the ground operation mission segment. As can be seen in Figure 43, the rotor stops were normally distributed among the four gross weight ranges.

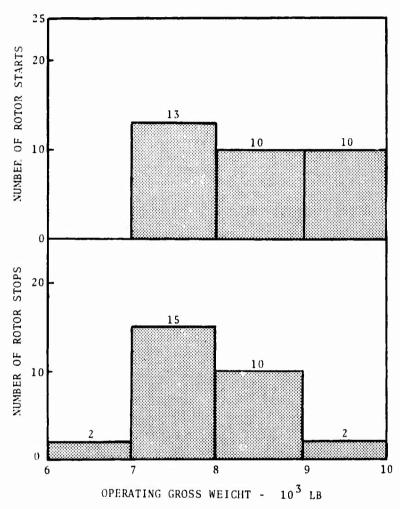


Figure 43. Occurrences of Rotor Starts and Rotor Stops by Gross Weight.

Tabular data for the rotor starts and stops are presented in Tables XCIII and XCIV of Appendix II.

Takeoffs

Takeoffs extended from the ground operation mission segment to either the hover or the ascent mission segment. For a hover, the duration of the takeoff was from the application of engine torque, through the lift-off, to the stabilization of engine

torque. Takeoffs to the ascent mission segment were timed from the application of engine torque and flight control movement (collective) until the sharp application of forward longitudinal cyclic control. At this point, a flight condition called initiation of ascent was begun. A sample segment of an oscillogram showing such a takeoff is presented in Figure 44.

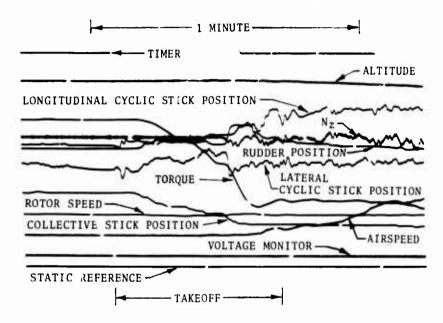


Figure 44. Oscillogram Showing Takeoff to Ascent.

Forty-six takeoffs to a hover occurred during the survey, representing 17 percent of the time spent in that mission segment. The takeoffs lasted an average of 15 seconds. The distribution of gross weight was normally divided among the gross weight ranges of 7,000 and more pounds, as shown in Figure 45. The main rotor rpm varied from 284 rpm to above 334 rpm; 20 percent of the time was spent above the 324 rpm limit. The distribution of density altitude at takeoff is presented in Figure 46. Twenty takeoffs to an ascent occurred during the survey. These conditions accounted for one percent of the time spent in the ascent mission segment and each one lasted an average of 11 seconds. Slightly more takeoffs were at gross weights below 8,000 pounds than above, as shown in Figure 47. The range in main rotor rpm for these takeoffs was considerably less than that for takeoffs to hovers, the former being only 314 to 333 rpm. Approximately 21 percent of the time was spent above the 324 rpm limit. The distribution of density altitude at takeoff is presented in Figure 48.

The data for each type of takeoff are contained in Tables LXXIII and XCV of Appendix II.

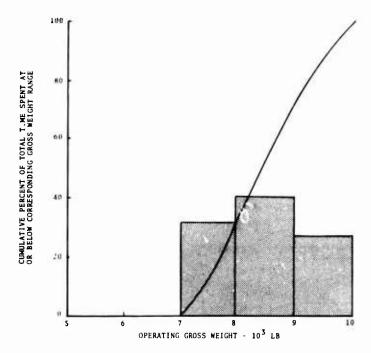


Figure 45. Cumulative Gross Weight Frequency Distribution for Takeoff to Hover.

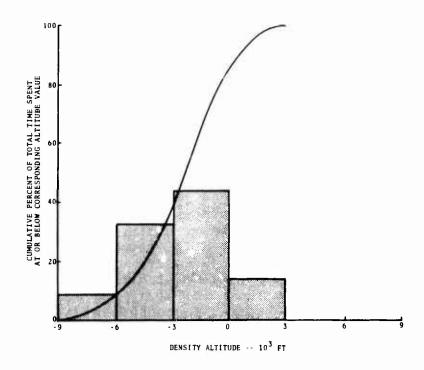


Figure 46. Cumulative Density Altitude Frequency Distribution for Takeoff to Hover.

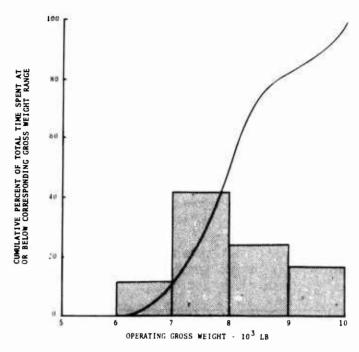


Figure 47. Cumulative Gross Weight Frequency Distribution for Takeoff to Ascent.

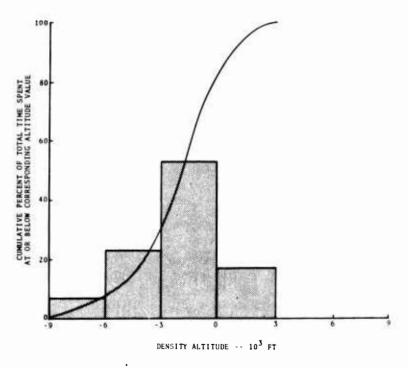


Figure 48. Cumulative Density Altitude Frequency Distribution for Takeoff to Ascent.

Touchdowns

Touchdown was the flight condition where a helicopter landed from either the descent or the hover mission segment. This flight condition was treated as an event, with no time associated with it.

Fifty touchdowns from a hover occurred during the survey. The touchdown distribution in gross weight ranges is presented in Figure 49. Two of the 50 touchdowns had short-duration n_z peaks, one of 1.2g and one of 1.3g. From the descent mission segment, 12 touchdowns occurred; the touchdown distribution in gross weight ranges is presented in Figure 49. The gross weight distribution is skewed toward the lower gross weights for touchdowns from a descent, most probably due to the desire to avoid a "hard" touchdown at high gross weights. Similarly, no n_z peaks were observed during landings from a descent.

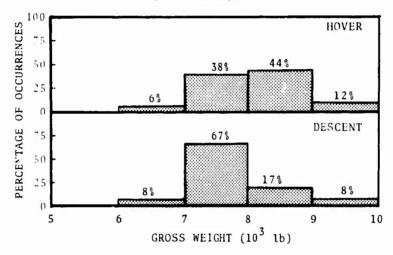


Figure 49. Percentage of Occurrences for Touchdown by Gross Weight and Mission Segment.

One touchdown occurred from a level flight mission segment; this landing occurred in the 7,000-pound gross weight range after a descent and then a level flight at an altitude very close to or at the landing altitude. The airspeed was below 40 knots. The data for each type of touchdown are contained in Tables XCII and XCVI of Appendix II.

Mission Segment Variations

Although many changes from one to another of the ascent, level flight, or descent mission segments were initiated by either a pull-up or pushover, most changes were so gradual or mild that a special flight condition, mission segment variation (MSV)

was needed. The MSV condition was normally a pushover or pull-up where only slight movement of the appropriate control could be noted and no n_Z peaks were generated. During this survey, 184 MSV's occurred: 40 in ascent, 106 in level flight, and the remaining 39 in descent. Tables IX, X, and XI summarize the maximum and minimum values of several selected parameters for the MSV's occurring in ascent, level flight, and descent, respectively; they occurred in all gross weight ranges, at airspeeds below 40 knots to 119 knots, and at rotor speeds from 314 to over 334 rpm. Additional data are contained in Tables LXXXVIII and XCVIII.

TABLE		ELECTED PARAMETERS I ENT VARIATIONS IN AS	
Gross Weight (1b)	Airspeed Range (kn)	Main Rotor Speed Range (rpm)	Max. Rate of Ascent (ft/min)
6000	90 to 110	314 to 325	300
7000	0 to 110	314 to 325	300
8000	60 to 105	314	300
9000	70 to 95	314 to 325	300

TABLE		ECTED PARAMETERS DUR T VARIATIONS IN LEVE	
Gross Weight (1b)	Airspeed Range (kn)	Main Rotor Speed Range (rpm)	Max. Rate of Ascent (ft/min)
6000	80 to 95	314 to 325	300
7000	40 to 115	314 to 325	390
8000	60 to 115	314 to 325	300
9000	40 to 115	314 to 325	. 300

TABLE			SELECTED PARAMETERS GMENT VARIATIONS IN I	
Gross Weight (1b)	Airspeed R (kn)	lange	Main Rotor Speed Range (rpm)	Max. State of Descent (ft/min)
6000	80		314	- 300
7000	40 to 1	.15	314 to 325	- 300
8000	70 to 1	.15	314 to 325	- 300
9000	40 to 8	0	314 to 325	- 300

Ground Taxis

Since the helicopters surveyed during this program were equipped with skis, a flight condition called ground taxi was formulated. This condition was characterized by slightly elevated engine torque, forward cyclic control, and an active normal load factor trace not characteristic of flight.

Sixteen ground taxis were observed during the ground operation mission segment; they lasted for a total of 5.5 minutes or 2 percent of the time spent in this mission segment. The ground taxis occurred in the gross weight ranges of 7,000, 8,000, and 9,000 pounds. As shown in Figure 50, all of the time was spent at engine torque pressures between 10 and 39 psi. No $n_{\rm Z}$ peak outside of the threshold of 0.8g to 1.2g was experienced. The data discussed above are presented in Tables LXXIV and XCVII of Appendix II.

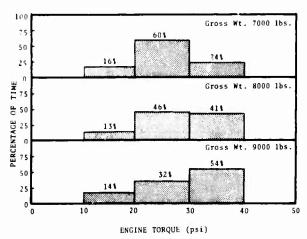


Figure 50. Percentage of Time Spent in Ground Taxi by Engine Torque and Gross Weight.

Begins and Ends in Flight

Because of the possibility of a jammed oscillograph magazine or an oscillograph running out of paper, flight conditions called "begins in flight" and "ends in flight" were formulated. Forty minutes after the beginning of one flight, the oscillogram used to edit the FCR data began to operate. Based upon the review of the other oscillogram, it can be concluded that only one rotor start occurred; however, for the purpose of clarity, this start was not included in the total number of rotor starts. Four occurrences of "ends in flight" were noted during this survey. One occurred during ground operations, and three, during level flight. The data discussed above are presented in Tables XCIX and C.

Initiations of Ascent

The flight condition "initiation of ascent" describes the maneuver which causes a climb to begin; it consists of the sharp application of forward longitudinal control movement and the possible increase of collective control. Initiations of ascent occurred during the change from the ground operation or the hover mission segment to the ascent mission segment.

Thirty-seven initiations of ascent from a hover occurred during this survey; they accounted for 9 percent of the time spent in the hover mission segment. The average duration of the initiations of ascent was approximately 10 seconds. As expected, 92 percent of the initiations of ascent time was spent below 40 knots, the remaining percentage, in the 40- to 60-knot range. The distribution of gross weight is shown in Figure 51. During many of the initiations of ascent, the normal operating limit of main rotor rpm was exceeded; 55 percent of the time was spent above 325 rpm. Likewise, the torque limit of 50 psi was exceeded 4 percent of the time, as shown in Figure 52. No n₂ peaks were experienced during these maneuvers. The data discussed above are presented in Tables LXXV and CI of Appendix II.

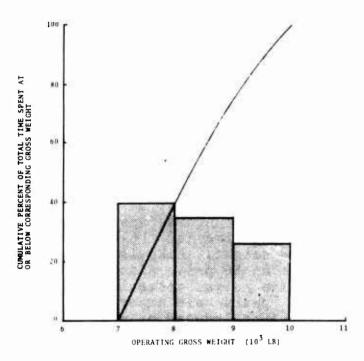


Figure 51. Cumulative Gross Weight Frequency Distribution for Initiation of Ascent in Hover.

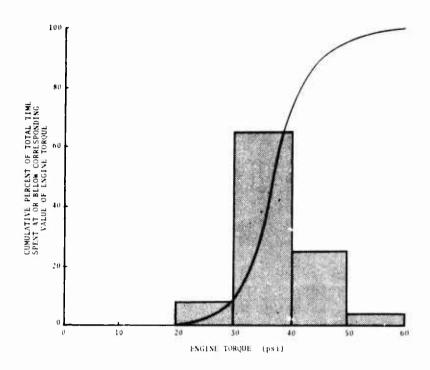


Figure 52. Cumulative Engine Torque in Frequency Distribution for Initiation of Ascent in Hover.

Seventeen initiations of ascent from the ground with an average duration of 11 seconds occurred. As shown in Figure 53, 85 percent of the time was spent below 40 knots, 12 percent within the 40- to 60-knot range, and the remaining 3 percent above 60 knots. The 17 initiations of ascent from the ground were not as severe as those from a hover, based on the data presented in Figures 54 and 55. Only 37 percent of the time for the initiations of ascent from the ground was spent above 8,000 pounds, whereas 57 percent of the time for those above the ground was spent above this gross weight. Likewise, no time was spent above the torque limit of 50 psi. Also, only 20 percent of the time was spent above the normal operating rpm limit of 324 rpm. No maneuver-induced $n_{\rm Z}$ peaks were experienced during these maneuvers; however, one gust-induced $n_{\rm Z}$ peak of 0.6g was experienced. The data discussed above are presented in Tables LXXV, XCII, and CI of Appendix II.

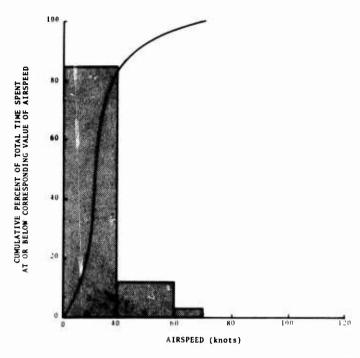


Figure 53. Cumulative Airspeed Frequency Distribution for Initiation of Ascent in Ascent.

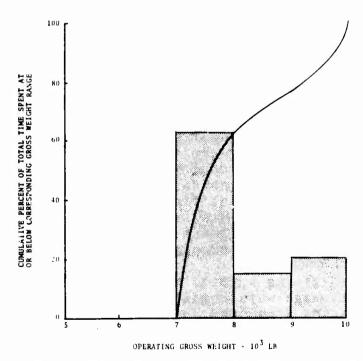


Figure 54. Cumulative Gross Weight Frequency Distribution for Initiation of Ascent in Ascent.

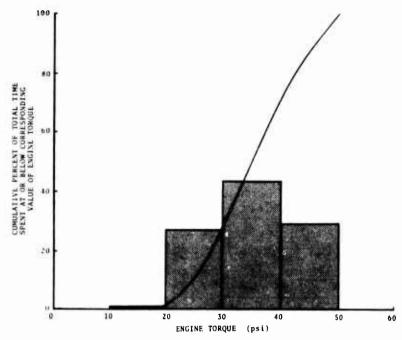


Figure 55. Cumulative Engine Torque Frequency Distribution for Initiation of Ascent in Ascent.

Left Turns

Left turns, which occurred during the hover, ascent, level flight, and descent mission segments, were characterized by the application of left cyclic and rudder control inputs followed by the reverse application of controls to recover. While not all turns could necessarily be identified, those turns which would be severe and fatigue damaging were identified. A total of 117 turns were identified during this survey. These turns occurred most frequently between the airspeed ranges of 80 to 85 and 100 to 105 knots, as depicted in Figure 56. Most of the time associated with the turns was spent in the level flight mission segment; the remaining time was evenly divided between the ascent and descent segments. The redline limit was exceeded during the descent segment. The left turns are further discussed in the following paragraphs.

Seven left turns lasting a total of 2.7 minutes and about 20 seconds on the average were conducted during the Mover mission segment; these turns accounted for 4 percent of the time in this mission segment. These turns occurred within gross weight ranges of 7,000 to 9,000 pounds and at rotor speeds varying from 314 to over 334 rpm. Of the seven turns, two had normal n_z peaks of very short duration, one of 0.7g and one of 1.2g. One n_x peak of 0.10g was experienced during these hovering turns. Because of the small number of turns in this mission

segment, no graphical presentations are included herein; the data are presented in Tables LXXVI, LXXXIX, XCII, and CII of Appendix II.

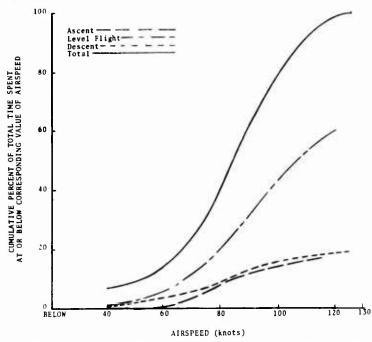


Figure 56. Cumulative Airspeed Frequency Distribution for Left Turn by Mission Segment.

Twenty left turns, averaging approximately 28 seconds in duration, were conducted during the ascent mission segment; these turns accounted for 4 percent of the time spent in the segment. As shown in Figure 56, most of the time spent in left turns during ascent was at airspeeds between 60 and 90 knots.

Sixty percent of the turns occurred at gross weights from 7,000 to 8,000 pounds; 4 percent, from 8,000 to 9,000 pounds; and the remaining 36 percent, from above 9,000 pounds. The distribution of time in ranges of engine torque versus rotor speed is presented in Table XII; most of the turns occurred within the normal operating range of rotor speed. Likewise, the distributions of airspeed acceleration and rate of climb are presented in Table XIII; most of the turns occurred during climbs of low rate. Nine turns had n, peaks outside the narrower editing threshold of 0.3g to 1.1g, ranging from 0.8g to A histogram of the distribution of these occurrences is presented in Figure 57. The occurrence and duration of the maximum and all nz peaks during left turns are presented in Table CII of Appendix II. In addition, the occurrence of n, peaks in nz versus airspeed ranges is contained in Table XIV. The remaining data concerning left turns during ascent are presented in Tables LXXVI and XCII of Appendix II.

TABLE XII. TIME FOR TORQUE VERSUS ROTOR SPEED BY GROSS WEIGHT FOR LEFT TURNS IN ASCENT

				ENGINE	TORQU	JE.		
WGT	RPM	PLW	10	20	30	40	50	SUN
7000	314			•19	3.62	.99		4.79
	325			.36	.14	.27		.77
	SUM			• 54	3.76	1.26		5.56
8000	325				•13	•28		• 4 1
9000	314			. 28	•58	1.97		2.83
	325					•60		.60
	SUM			•28	•58	2.57		3.43

TABLE XIII. TIME FOR AIRSPEED ACCELERATION VERSUS RATE OF CLIMB BY GROSS WEIGHT FOR LEFT TURNS IN ASCENT

WGT	R/C	-12	-9	-6	-3	CCELERA 3	6	9	12	SUN
		-12	-9		_	-	0	7	12	
7000	-300			.24	2.36	•08				2.68
	300				1.52	.16				1.68
	600			.08	.80					. 88
	900				.32					.32
	SUM			•32	5.00	.24				5.56
8000	300				•41					.4
9000	-300				1.41					1.4
	300				1.09					1.09
	600				.93					.93
	FIJM				3.43					3.4

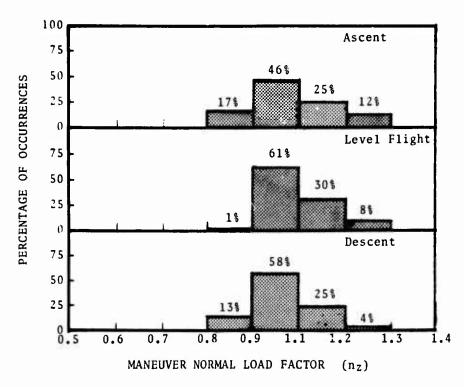


Figure 57. Percentage of Occurrences for Maneuver Normal Load Factor Peaks for Left Turn by Mission Segment.

TABLE XIV.	TIME F GROSS	OR MA WEIGH	NEUVE IT FOR	ER n _z PE LEFT T	AKS VERSUS AIRSPEED URNS IN ASCENT	BY
	WGT	VFL	NZ	OCCUR	DURATION	
	7000	60	$1 \cdot 1$	2	0.06	
		75	1.2	1	0.28	
		80	0.8	2	0.03	
			1 • 1	2	0.29	
}		85	0.8	1	0.01	
			1.1	1	0.25	
			1.2	1	0.26	
		90	0.9	1	0.02	
	8000	75	1.2	1	0.33	
	9000	75	1.1	1	0.02	

In the level flight mission segment, 71 left turns occurred; averaging approximately 29 seconds in duration, these turns accounted for 3 percent of the time spent in this segment. These left turns occurred most often within the airspeed ranges from 70 to 115 knots, as depicted in Figure 56. The distribution of time in left turns in level flight by gross weight is 5 percent in the 6,000- to 7,000-pound range, 24 percent in the 7,000- to 8,000-pound range, 41 percent in the 8,000- to 9,000pound range, and 30 percent in the above 9,000-pound range. The distribution of time in ranges of engine torque versus rotor speed is presented in Table XV; 88 percent of the time is within the normal operating range of rotor speed. Likewise, the distributions of airspeed acceleration and rate of climb are presented in Table XVI; slight variations in altitude occurred during turns in level flight. Twenty-two turns had 31 nz peaks outside the narrower editing threshold and ranged from 0.8g to A histogram of the distribution of these occurrences is presented in Figure 57. The occurrence and duration of the maximum and all nz peaks during left turns are presented in Table CII of Appendix II. In addition, the occurrence of n₂ peaks in n_z versus airspeed ranges is contained in Table XVII. The remaining data concerning left turns in level flight are presented in Tables LXXVI and XCII of Appendix II.

TABLE X						ROTOR SI LEVEL		BY GROSS IT
				ENGINE	TORQU	JE		
WGT	RPM	PLW	10		30	40	50	SUM
6000	314	1 12/11	* 17		1.00			1.87
8000	J 1 7			•	1000			• • • •
7000	314			2.29	4.36	-88		7.53
1 7000	325				. 25			. 48
j	SUM				4.61	.88		8.01
1	300					·		
9000	314		•07	3.30	4.27	2.04		10.28
,,,,,	325		•		1.52			3.46
1	SUM		.07		5.79			13.74
	30		• .	. •	-			
9000	314		.03	2.90	2.52	4.79		10.23

TABLE XVI. TIME FOR AIRSPEED ACCELERATION VERSUS RATE OF CLIMB BY GROSS WEIGHT FOR LEFT TURNS IN LEVEL FLIGHT

				AIR	SPEED A	CCELERA	TION			
WGT	R/C	-12	-9	-6	-3	3	6	9	12	SUM
6000	-300			•09	1.78					1.87
7000	-900				• 2'8					.28
	-600				.26					.26
	-300			• 09	7.01	.27				7.37
	300				.10					.10
	SUM			•09	7.65	.27				8.01
8000	-300			• 25	12.33	•09				12.67
	300			.95		.12				1.07
	SUM			1.20	12.33	•21				13.74
9000	-300			.08	9.68	.08				9.84
	300				.39					.39
	SUM			-08	10.07	.08				10.23

TABLE XVII. TIME FOR MANEUVER n_Z PEAKS VERSUS AIRSPEED BY GROSS WEIGHT FOR LEFT TURNS IN LEVEL FLIGHT

				· · · · · · · · · · · · · · · · · · ·	
WGT	VEL	NZ	OCCUR	DURATION	
6000	40	1.1	1	0.08	
	60	1.2	1	0.20	
7000	40	1.1	3	0.19	
	60	1.1	1	0.04	
	95	1.1	1	0.01	
	110	1 • 1	2	0.03	
8000	40	1.1	1	0.13	
	70	1 • 1	2	0.15	
	75	1.2	2	0.43	
	80	1.1	3	0.12	
		1.2	1	0.13	
	85	1.1	2	0.05	
	90	1.1	1	0.05	
	95	1.2	1	0.27	
	100	0.8	1	0.02	
	105	1.1	3	0.08	
		1.2	1	0.09	
9000	105	1.1	1	0.07	
	115	1.1	3	0.14	

Noneteen left turns, averaging approximately 33 seconds in duration, were conducted during the descent mission segment; these turns accounted for 5 percent of the time spent in this segment. Most of the time spent in left turns during descent was at airspeeds between 80 and 100 knots. The redline limit of 120 knots was exceeded for 10 seconds during one turn in descent.

Fifteen percent of the turns occurred at gross weights from 6000 to 7000 pounds; 33 percent from 7000 to 8000 pounds; 24 percent from 8000 to 9000 pounds; and the remaining 28 percent, above 9000 pounds. The distribution of time in ranges of engine torque versus rotor speed is presented in Table XVIII; 68 percent of the turns occurred within the normal operating range of rotor speed. Likewise, the distributions of airspeed acceleration and rate of climb are presented in Table XIX; most of the turns occurred in descents of low rate. Five turns had 10 n_z peaks, ranging from 0.8g to 1.2g. A histogram of the distribution of these occurrences is presented in Figure 57. The occurrence and duration of the maximum and all nz peaks during left turns are presented in Table CII of Appendix II. In addition, the occurrence of n_z peaks versus airspeed is contained in Table XX. The remaining data concerning left turns in descent are presented in Tables LXXVI and XCII of Appendix II.

	1	WEIGHT	FOR	LEFT T	IRNS IN	DESCE	NT	BY GROS
				ENGINF	TORQUE			
WGT	RPM	$G \cap M$	10	20	30	40	50	SJM
6000	314			.66	.35			1.01
	325			• ^{5 Q}				•58
	SUM			1.24	• 35			1.59
7000	314		.09	1.60	•24			1.93
	325			• 36	1.10			1.46
	SIIM		• 0.3	1.96	1.34			3.39
8000 3	314			• 40	•71	• 0 9		1.20
	325			• 70	.62			1.32
	SUM			1.10	1.33	• 09		2.52
9000	314			1.39	1.52			2.91

TABLE XIX. TIME FOR AIRSPEED ACCELERATION VERSUS RATE OF CLIMB BY GROSS WEIGHT FOR LEFT TURNS IN DESCENT

				AIRS	PEED AC	CELERA	TION			
WGT 6000	R/C -600	-12	-9	-6 •12	-3 1.30	3 •17	6	9	12	SUM 1.59
7000	-900 -600 -300 SUM				.24 1.20 1.95 3.39					•24 1•20 1•9 3•39
8000	-900 -600 -300 SUM				.70 .62 1.20 2.52					.70 .62 1.20 2.52
9000	-1200 -600 -300 SUM			•09 •09	.68 .71 1.25 2.64	•18 •18				.68 .71 1.52 2.91

TABLE XX. TIME FOR MANEUVER $\mathbf{n_Z}$ PEAKS VERSUS AIRSPEED BY GROSS WEIGHT FOR LEFT TURNS IN DESCENT

WGT	VFL	NZ	OCCUR	DURATION	
6000	40	() • P	1	0.01	
	60	1.2	1	2.17	
8000	٩٥	1.1	1	0.02	
	8.5	1.1	1	0.09	
	90	1.1	1	€.06	
	95	1.1	l	0.01	
	100	∩. A	1	0.01	
9000	60	0.4	1	0.03	
		1.1	1	0.03	
	70	1.1	1	0.03	

Right Turns

Right turns, which occurred during the hover, ascent, level flight, and descent mission segments, were characterized by the application of right cyclic and rudder control movements followed by the reverse application of controls to recover from the turn. As with the left turns, not all of the right turns could necessarily be identified; however, those which would be fatigue damaging were identified. The 176 right turns identified during this survey occurred most frequently at airspeeds between 80 and 95 knots, as shown in Figure 58. Once again, most of the time was spent in the level flight segment while the remaining time was evenly divided between the ascent and descent segments. The redline limit of 120 knots was exceeded once during the level flight segment. Further discussion of right turns is contained in the following paragraphs.

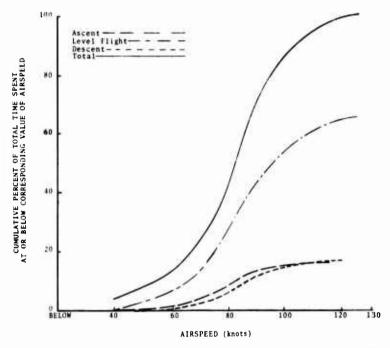


Figure 58. Cumulative Airspeed Frequency Distribution for Right Turn by Mission Segment.

Six right turns, with an average 22-second duration, were conducted in the hover mission segment. These turns occurred within the gross weight range of 8000 to 9000 pounds and at rotor speeds of 314 to over 334 rpm. None of the turns had normal load factor peaks. Because of the small number of turns in this mission segment, no graphical presentations are presented; the data are presented in Tables LXXVII and CIII of Appendix II.

Thirty turns, averaging 27 seconds in duration, were identified during the ascent mission segment; these turns accounted for 5 percent of the ascent time. As shown in Figure 58, most of the time spent in right turns during ascent was at airspeeds between 60 and 90 knots.

Two percent of the turns occurred at gross weights from 6000 to 7000 pounds; 34 percent, from 7000 to 8000 pounds: 43 percent, from 8000 to 9000 pounds; and the remaining 21 percent, above 9000 pounds. The distribution of time in ranges of engine torque versus rotor speed is presented in Table XXI; 45 percent of the time was spent above 324 rpm. Likewise, the distributions of airspeed acceleration and rate of climb are presented in Table XXII; most of the turns were performed during the climbs of low rate. Eight turns had 13 maneuver-induced nz peaks outside the narrower editing threshold and ranged from 0.6g to 1.3g. A histogram of the distribution of these occurrences is presented in Figure 59. The occurrence and duration of the maximum and all n_z peaks during right turns are presented in Table CIII of Appendix II. In addition, the occurrence of nz peaks in nz versus airspeed ranges is contained in Table XXIII. One turn had a gust-induced n₂ peak of 1.2g as presented in Table XCI of Appendix II. The remaining data concerning right turns during ascent are presented in Table LXXVII and XCII of Appendix II.

	TABLE 2	XXI.				VERSUS TURNS			BY GROSS	
				1	ENGINE	TORQUE				
1	WGT	RPM	BLW	10	20	30	40	50	SJM	ı
l	6000	314		• • •	••	, ,	.29	• •	•29	
1	0.,0.,								• • •	
	7000	314			.85	1.82	.44		3.11	
1	11100	925		- 09	92		• ' '		1.36	ı
ı		SUM				2.17	.44		4.47	ı
		30.4		907	1011	c. • 1	• • •		, •	- 1
1	6000	314				.87	1.01		1.88	
1	0000	325			-66	.84			3.81	
1		SUM				1.71			5.69	
		Jenn			• 00	Y	7 7 7 6		J • U J	
	9000	314				2.00			2.00	
	,	325			.32	•08	.47		•87	-
		SUM			• 32				2.87	

TABLE XXII. TIME FOR AIRSPEED ACCELERATION VERSUS RATE OF CLIMB BY GROSS WEIGHT FOR RIGHT TURNS IN ASCENT

				AIRS	PEED AC	CELERA	TION			
WGT 6000	R/C 300	-12	-9	- 6	-3	3 • 29	6	9	12	• 29
7000	-300			.08	3.09	•08				3.25
	300			.33	.45					.78
	600				.28	.16				.44
	SUM			•41	3.82	• 24				4.41
8000	-300				1.93	• 28				2.01
	300				2.73	•02				2.75
	600				.57					•57
	900			.23	•13					.36
	SUM			.23	5.36	•10				5.69
9000	-300				.25					• 25
,,,,,	300				2.15					2.15
	600				.47					.47
	SUM				2.87					2.8

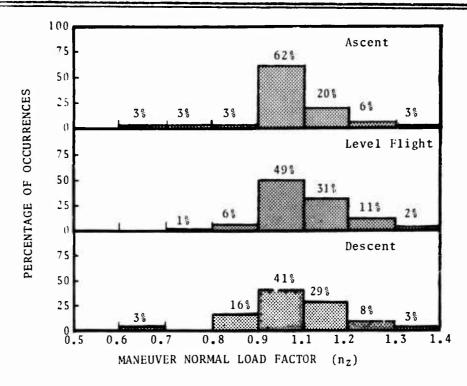


Figure 59. Percentage of Occurrences for Maneuver Normal Load Factor Peaks for Right Turn by Mission Segment.

TABLE XXIII. TIME FOR MANEUVER n_z PEAKS VERSUS AIRSPEED BY GROSS WEIGHT FOR RIGHT TURNS IN ASCENT

WC	ST	VFL	NZ	OCCUR	DURATION
	000	60	0.8	1	0.02
			1.1	1	0.01
		75	1 • 1	1	0.07
		85	1.1	1	0.02
		90	1.2	1	0.02
		105	0.7	1	0.03
		110	0.6	1	0.03
			1.3	1	0.03
80	000	40	1.1	1	0.09
		75	1.1	1	0.09
		80	1.1	2	0.20
		90	1.2	1	0.03

In the level flight mission segment, 111 right turns averaging 27 seconds in duration occurred; these turns accounted for 4 percent of the time in that mission segment. These turns occurred most often at airspeeds of 75 to 95 knots, as depicted in Figure 58. The redline limit was exceeded once for 10 seconds.

Nine percent of the turns occurred at gross weights from 6000 to 7000 pounds; 33 percent, from 7000 to 8000 pounds; 40 percent, from 8000 to 9000 pounds; and the remaining 18 percent, above 9000 pounds. The distribution of time in ranges of engine torque versus rotor speed is presented in Table XXIV; 28 percent of the time was spent above 325 rpm. Likewise, the distribution of airspeed acceleration and rate of climb are presented in Table XXV; slight variations in altitude occurred during right turns in level flight. Thirty-nine turns had 74 maneuver-induced n_z peaks outside the narrower editing threshold and ranged from 0.7g to 1.3g. A histogram of the distribution of these occurrences is presented in Figure 59. The occurrence and duration of the maximum and all n₂ peaks during right turns are presented in Table CIII of Appendix II. In addition, the occurrence of n_z peaks in n_z versus airspeed ranges is contained in Table XXVI. Seven occurrences of gust-induced n₂ peaks ranging from 0.6g to 1.2g were observed during the 111 right turns as presented in Table XCI of Appendix II.

In addition, one turn experienced an n_y peak of -0.10g as presented in Table XC of Appendix II. The remaining data concerning right turns in level flight are also presented in Tables LXXVII and XCII of Appendix II.

The same of the sa

TABLE XXIV.	TIME FOR TORQUE VERSUS ROTOR SPEED	BY GROSS
THE BE KILLY	WEIGHT FOR RIGHT TURNS IN LEVEL FL	I GHT

				ENC IN	TOPOU	·		
				ENGINE	TORQU	r		u
WGT	RDM	u F 📶	10	20	30	40	50	SJM
6000	314		.09	3.81	•12			4.02
000,	325			1.04				1.04
	SUM		•09	4.85	.12			5.06
7000	314			4.50	6.55	1.17		12.22
,	325		.47	2.50	2.69	•11		5.77
	SUM		.47		9.24	1.28		17.99
8000	314			4.91	7.30	2.37		14.53
000	325		.05	2.61	4.67	.16		7.49
	SUM		0.5		11.97	2.48		22.02
9000	314			3.21	2.70	3.03		8.94
	325			• 55	• 36			•91
	SUM			3.76	3.06	3.03		9.85

TABLE XXV. TIME FOR AIRSPEED ACCELERATION VERSUS RATE OF CLIMB BY GROSS WEIGHT FOR RIGHT TURNS IN LEVEL FLIGHT

				AIRS	PEED AC	CELERA	TION		
WGT	P/C	-12	-9	-6	- 3	3	6	9	12 SUN
6000	-300			. 34	4.46	.26			5.06
7000	-300			.40	14.82	.60			15.82
	300				2.08	.09			2.17
	SUM			•40	16.90	•69			17.99
8000	-900				.13		.06		.19
	-600		.08	.14	1.90	.08			2.20
	-300			. 35	18.40	.18			18.93
	300			.02	.68				•70
	SUM		•08	•51	21.11	.26	• 06		22.02
9000	-300		•03	•05	9.77				9.85

TABLE XXVI. TIME FOR MANEUVER n_{Z} PEAKS VERSUS AIRSPEED BY GROSS WEIGHT FOR RIGHT TURNS IN LEVEL FLIGHT

WGT	VEL	NZ	OCCUR	DURATION	
6000	PL	1.1	1	0.04	
	60	0.8	1	0.01	
	44.0	1.1	2	0.05	
	70	1.2	1	0.10	
	75	0.8	2	0.02	
		1 • 1 1 • 2	2	0.03	
	80	0.8	1	0.04	
	40	1.1	2	0.04	
	85	1.1	ĺ	0.03	
ł	90	1.1	2	0.03	
	95	0.8	1	0.01	
		1.1	2	0.02	
	100	1.1	1	0.01	
	105	1.1	ī	0.01	
7000	40	1.2	2	0.23	
	60	1.1	3	0.13	
	_	1.3	1	0.29	
	70	1.1	1	0.01	
		1.3	1	0.19	
	80	1.1	1	0.02	
	0-	1.2	1	0.42	
	85 90	1.1	1	0.03 0.02	
1	90 95	0.8 0.8	1 1	0.02 0.01	
1	77	1.1	l l	0.01	
		1.2	1	0.03	
	105	0.7	i	0.00	
		1.2	i	0.02	
	110	0.7	î	0.01	
		1.2	ì	0.02	
8000	40	1.1	3	0.14	
		1.2	3	0.26	
	60	1.2	1	0.03	
	75	1.1	3	0.10	
	-	1.2	1	0.27	
	80	1.1	1	0.10	
	85	1.1	3	0.18	
	0.0	1.2	1	0.02	
	90	0.8	1	0.01	
	95	1•1 1•1	4 2	0.16 0.07	
	77	1.2	1	0.07	
	105	1.1	2	0.06	
		1.3	1	0.30	
7.5	115				
9000	60	1.1	1	0.01	
	70	1.1	1	0.05	
	75	1.1	1	0•02 0-12	
	80 115	1.1	2	0.12	
	115	1.1	1	0.04	

Twenty-nine right turns, averaging approximately 30 seconds in duration, were conducted during the descent mission segment; these turns accounted for 7 percent of the time spent in the segment. Most of the time spent in right turns during descent was at airspeeds between 75 and 90 knots.

Thirteen percent of the turns occurred at gross weights from 6000 to 7000 pounds; 25 percent, from 7000 to 8000 pounds; 28 percent, from 8000 to 9000 pounds; and the remaining 33 percent above 9000 pounds. The distribution of time in ranges of engine torque versus rotor speed is presented in Table XXVII; 23 percent of the time was spent above 325 rpm. Likewise, the distributions of airspeed acceleration and rate of climb are presented in Table XXVIII; 21 percent of the time spent in right turns was at a rate of descent greater than 1,200 feet per minute. Thirteen turns had 19 maneuver-induced nz peaks outside the narrower editing threshold and ranged from 0.6g to 1.3g. A histogram of the distribution of these occurrence: is presented in Figure 59. The occurrence and duration of the maximum and all n₂ peaks during right turns are presented in Table CIII of Appendix II. In addition, the occurrence of n_z peaks in n_z versus airspeed ranges is contained in Table XXIV. Five occurrences of gust-induced nz peaks ranging from 0.7g to 1.3g were observed during the 29 right turns as presented in Table XCI of Appendix II. The remaining data concerning right turns in descent are presented in Tables LXXVII and XCII of Appendix II.

TABLE XX	(VII.	TIME WEI	FOR GHT FO	TORQUE R RIGH	VERSUS T TURNS	ROTOR IN DE	SPEE	D BY GROS
				ENGINE	E TORQU	Ε		
WGT	RPM	BL.W	10	20	30	40	50	SUM
6000	314			1.20	.17	.09		1.46
	325		•12	.24				• 36
	SUM		•12	1.44	•17	•09		1.82
7000	314		1.32	1.26	•60	.16		
	325		. 36					
	SUM		1.68	1.26	•60	.16		3.70
8000	314		•42	1.47	.17			
	325		.34	.54	.96	• 11		
	SUM		•76	2.01	1.13	•11		4.01
9000	314		•31	2.43	• 37	. 95		
	325			•50				
	SUM		• 49	2.93	• 37	• 95		4.74
				a samu				

TABLE XXVIII. TIME FOR AIRSPEED ACCELERATION VERSUS RATE OF CLIMB BY GROSS WEIGHT FOR RIGHT TURNS IN DESCENT

				AIRSE	PEED AC	CELERA	TION			
WGT	R/C	-12	-9	-6	-3	. 3	6	9	12	SUM
6000	-900				.77	OR				.85
	-600				.97					.97
	SUM				1.74	.OR				1.82
7000	-1800				.45					.45
	-1500				.66				• 02	.6R
	-1200			.08	.48					. 56
	-600			.16	.91					1.07
	-300		•02	.16	.76					.94
	SUM		.02	•40	3.26				•02	3.70
8000	-1500				.63	-	•			.63
	-1200				•41					.41
	-900			. OA	1.08	.03				1.19
	-600			.13	.53					.66
	-300		.02	.08	1.02					1.12
	SUM		.07	•29	3.67	.03				4.01
9000	-2100				.21					.21
	-900				.84					. 84
	-600			.14	.98					1.12
	-300				2.49	. OR				2.57
	SUM			.14	4.57	.08				4.74

TABLE XXIX. TIME FOR MANEUVER $n_{\mathbf{Z}}$ PEAKS VERSUS AIRSPEED BY GROSS WEIGHT FOR RIGHT TURNS IN DESCENT

WGT	VEL	NZ	OCCUR	DURATION	
6000	60	1.1	1	0.01	
7000	BL	1.2	1	0.04	
	40	0.8	1	0.01	
		1.1	1	0.06	
	80	1.2	1	0.41	
	85	1.2	1	0.02	
	90	0.6	1	0.02	
		1.1	1	0.06	
	95	1.1	2	0.06	
		1.3	1	0.07	
8000	60	1.1	1	0.11	
	80	1.1	ī	0.02	
	85	1.1	i	0.01	
	90	0.8	ī	0.02	
	95	1.1	i	0.03	
	115	1.1	i	0.01	
9000	80	1.1	1	0.03	
4000	100	0.8	i	0.04	

Pushovers

The collective and cyclic pushover flight conditions were identified as maneuvers which reduced or terminated ascents and initiated or increased descents. In each case, there was a decrease in engine torque and the possibility of a negative normal load factor peak.

This section will discuss both types of pushovers which occurred in the various mission segments. Pictorial and tabular presentations for collective pushovers will be discussed in the following paragraphs. However, because of the very small number of cyclic pushovers, no specific graphical presentation will be made.

One collective pushover occurred in the hover mission segment and lasted 5.4 seconds. It occurred at a gross weight between 8000 and 9000 pounds and did not generate either a gust- or a maneuver-induced $n_{\rm Z}$ peak. Data for this occurrence are presented in Tables LXXVIII and CIV of Appendix II.

Thirty-one collective pushovers averaging approximately 11 seconds in duration were conducted in the ascent mission segment; these pushovers accounted for 2 percent of the time spent in the segment. As shown in Figure 60, most of the time spent in collective pushovers during ascents was at airspeeds between 70 and 85 knots.

Fourteen percent of the pushovers occurred at gross weights from 6000 to 7000 pounds; 47 percent, from 7000 to 8000 pounds; 33 percent, from 8000 to 9000 pounds; and the remaining 6 percent, above 9000 pounds. The distribution of time in ranges of engine torque versus rotor speed is presented in Table XXX; 74 percent of the pushovers occurred within the normal operating range of rotor speed. Likewise, the distributions of airspeed acceleration and rate of climb are presented in Table XXXI; most of the pushovers in the ascent mission segment occurred at relatively low rates of climb. Only one pushover, at a gross weight between 8000 to 9000 pounds, generated n_z Within the same maneuver, a negative n_z peak of 0.7g and then a positive nz peak of 1.2g were generated, as shown in Table CIV of Appendix II. From Table XXXII, the airspeed at the two peaks is 85 and 40 knots for the 0.7g and 1.2g peaks, respectively. The remaining data concerning collective pushovers during ascent are presented in Tables LXXVIII and XCII of Appendix II.

TABLE XXX. TIME FOR TORQUE VERSUS ROTOR SPEED BY GROSS WEIGHT FOR COLLECTIVE PUSHOVERS IN ASCENT

				ENGINE	TORQU	F.		
WGT	REM	$D \Gamma M$	10	20	30	40	50	5.51
6000	314			•16	.37	• 30		• 8 :
7000	314			.74	1.31	•29		2.34
	325			•12	.24	.09		. 4
	SUM			• 96	1.55	• 38		2.79
8000	304				•07	.07		• 1
	314		.25	.17	•10	•21		• 7
	325		.13	.23	• 36	. 36		1.08
	SUM		•38	• 40	•53	•64		1.9
9000	314				• 35			• 3

TABLE XXXI. TIME FOR AIRSPEED ACCELERATION VERSUS RATE OF CLIMB BY GROSS WEIGHT FOR COLLECTIVE PUSHOVERS IN ASCENT

				AIRS	PEED AC	CELERA	TION			
WGT	R/C	-12	-9	-6	- 3	3	6	9	12	SUM
6000	-300				.43	.10				•53
	300				.30					• 30
	SUM				.73	•10				.83
7000	-600				.32					.32
	-300				1.20	.02				1.22
	300				.36					• 36
	600				.66					•66
	900				.23					.23
	SUM				2.77	•02				2.79
8000	-300				.84					.84
	300			.06	.45	•10				•61
	600				.22					.22
	900					.14				.14
	1200									
	1500				.14					.14
	SUM			•06	1.65	.24				1.95
9000	-300				.05					•05
	300				• 30					• 30
	SUM				.35					.35

TABLE XXXII. TIME FOR MANEUVER nz PEAKS VERSUS AIRSPEED BY GROSS WEIGHT FOR COLLECTIVE PUSHOVERS IN ASCENT VFL WGT NZ OCCUR DUPATION 8000 40 1.2 0.01 RE 0.7 1 0.02

In the level flight mission segment, 84 collective pushovers were conducted to initiate a descent; they averaged 9 seconds in duration and accounted for one percent of the time in the mission segment. These pushovers occurred most often within the airspeed range from 80 to 110 knots, as depicted in Figure 60. Seven percent of the pushovers occurred at gross weights from 6000 to 7000 pounds; 40 percent, from 7000 to 8000 pounds; 44 percent, from 8000 to 9000 pounds; and the remaining 9 percent, above 9000 pounds. The distribution of time in ranges of engine torque versus rotor speed is presented in Table XXXIII; 70 percent of the pushovers occurred within the normal operating range of rotor speed. Likewise, the distributions of airspeed acceleration and rate of climb are presented in Table XXXIV. Most of the pushovers occurring in the level flight segment initiated a descent at rates of 300 to 600 feet per minute. Five pushovers generated maneuver nz peaks of 0.7g; two of these five pushovers also had positive n_z peaks of 1.2g as indicated in Table CIV of Appendix II. The occurrence of nz peaks in nz versus airspeed ranges is contained in Table XXXV; nz peaks were generated during pushovers which occurred at airspeeds from below 40 knots to 95 knots. In addition, one gust-induced n_z peak of 0.7g and one of 1.2g occurred during the remaining 79 collective pushovers, as shown in Table XCI of Appendix II. The remaining data concerning collective pushovers during level flight are presented in Tables LXXVIII and XCII of Appendix II.

Twenty-three collective pushovers, averaging 14 seconds, occurred in the descent mission segment. In general, these maneuvers tended to increase the rate of descent. They occurred at gross weights ranging from 6000 to 9000 pounds. Thirty-seven percent of the time spent in this flight condition was above the normal operating limit for rotor speed. Rates of descent varied from 300 to 1,200 feet per minute. One pushover generated an $n_{\rm Z}$ peak of 1.2g, as shown in Table CIV of Appendix II. Additional data are presented in Tables LXXVIII and XCII of Appendix II.

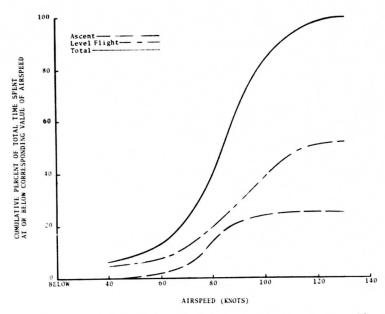


Figure 60. Cumulative Airspeed Frequency Distribution for Collective Pushover by Mission Segment.

TABLE	XXX		WEIGH FLIGH	T FOR	COLLEC	TIVE P	USHOVE	RS IN	BY GROSS LEVEL
					ENGINF	TOROU	=		
W	GT	EFM	PLW	10	20	30	40	50	SUM
	000	314			•46	• 34	•03		.83
7	000	304					.05		.05
		314		•09	.61	2.33	.67		3.70
		325		.06	. 38	.68	.07		1.19
		SUM		• 15	•99	3.01	• 79		4.94
p	000	314			•66	1.03	1.23		2.92
•	.000	325		.03	1.09	.97	• 30		2.39
		334					•10		• 10
		Silvi		•03	1.75	2.00	1.63		5.41
,	9000	314			•12	.80	•09		1.01
	,0.50	325				.05			• 05
		SUM			•12	. 35	.09		1.06

TABLE XXXIV. TIME FOR AIRSPEED ACCELERATION VERSUS RATE OF CLIMB BY GROSS WEIGHT FOR COLLECTIVE PUSHOVERS IN LEVEL FLIGHT

				AIRS	PEED A	CCELERA	ATION			
WGT	R/C	-12	-9	-6	-3	3	6	9	12	SUM
6000	-600			.15	•11	.07				. 33
	-300			.06	.44					•50
	SUM			•21	•55	•07				.83
7000	-1500				•27					.27
	-1200									
	-900									
	-600				.45					.45
	-300			.06	2.60	.19				2.85
	300		.09	.05	1.02	.14				1.30
	600				.07					.07
	SUM		•09	•11	4.41	.33				4.94
8000	-900				.14					•14
	-600				1.02	• 05				1.07
	-300			•27	3.16	•04				3.47
	300			.06	.44					•50
	600									
	900			•08	.10					.18
	1200									
	1500				•05					• 05
	SUM			• 41	4.91	• 0 9				5.41
9000	-900				.09					.09
	-600				.44					.44
	-300				•53					•53
	SUM				1.06					1.06

TABLE XXXV. TIME FOR MANEUVER n_{z} PEAKS VERSUS AIRSPEED BY GROSS WEIGHT FOR COLLECTIVE PUSHOVERS IN LEVEL FLIGHT

WGT 6000	VEL 40 80	NZ 0.7 1.2	OCCUR 1 1	DURATION 0.03 0.01	
7000	85 85 95	0.7 1.2 0.7	1 1 1	0.01 0.00 0.01	
8000	PL 80	0.7	1	0.01 0.02	

In contrast to the 139 collective pushovers, only 12 cyclic pushovers occurred during the survey. One occurred in the ascent mission segment at a gross weight between 7000 and 8000 pounds; no n_z peak was generated during this condition. Six cyclic pushovers occurred during level flight. The gross weight of these conditions ranged from 7,000 to 8,000 pounds; no n_z peaks were generated during these pushovers. Within the descent mission segment, five pushovers occurred at gross weights between 7000 and 8000 pounds. Two of these five had n_z peaks of 1.2g. Data for these various occurrences are contained in Tables LXXIX, XCII, and CV of Appendix II.

Finally, the cumulative frequency distribution of airspeed for collective and cyclic pushovers is presented in Figure 61. Collective pushovers were generally performed at higher airspeeds than cyclic pushovers. Also, from the above presentation, it can be seen that collective pushovers are more frequent and more severe than cyclic pushovers.

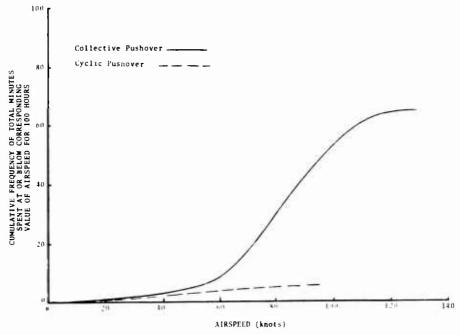


Figure 61. Comparison of Cumulative Airspeed Frequency Distribution for Collective Pushover With That for Cyclic Pushover.

Pull-ups

The collective and cyclic pull-up flight conditions were identified as maneuvers which initiated or increased ascents and decreased or terminated descents. In each case, there was an increase in torque and the possibility of a positive normal load factor peak.

This section will discuss both types of pull-ups which occurred in the various mission segments. Pictorial and tabular presentations for collective pull-ups will be discussed in the following paragraphs. However, because of the very small number of cyclic pull-ups, no specific graphical presentations will be made; the discussion will be limited to the tabular presentation of Appendix II.

One collective pull-up occurred in the hover mission segment and lasted 5 seconds. It occurred at a gross weight between 8000 and 9000 pounds and did not generate an n_z peak. Data for this occurrence are presented in Tables LXXX and CVI of Appendix II.

Seven collective pull-ups, averaging 5 seconds, occurred in the ascent segment. In general, these maneuvers tended to increase the rate of ascent. The gross weights at which they occurred ranged from 7000 to 9000 pounds. Sixty-five percent of the time in pull-ups was spent above the normal rotor speed operating limit. Rates of ascent varied from 300 to 900 feet per minute. No $n_{\rm Z}$ peaks were generated during these pull-ups. Additional data are presented in Tables LXXX and CVI of Appendix II.

In the level flight mission segment, 34 collective pull-ups were conducted to terminate a descent; they averaged 10 seconds in duration and accounted for less than one percent of the mission segment time. These pull-ups occurred most often at airspeeds below 40 knots; above 40 knots, the pull-ups were evenly distributed among the airspeed ranges up to 95 knots.

Eight percent of the pull-ups occurred at gross weights from 6000 to 7000 pounds; 36 percent, from 7000 to 8000 pounds; 48 percent, from 8000 to 9000 pounds; and the remaining 8 percent, from above 9000 pounds. The distribution of time in ranges of engine torque versus rotor speed is presented in Table XXXVI; 67 percent of the pull-ups occurred within the normal operating range of rotor speed. Likewise, the distributions of airspeed acceleration and rate of climb are presented in Table XXXVII; rates of descent varied from 300 to 1200 feet per minute. Two pull-ups generated n_z peaks of 1.2g to 1.3g as indicated in Table CVI of Appendix II. The occurrence of n₂ peaks in n₂ versus airspeed ranges is contained in Table XXXVIII; nz peaks were generated during pull-ups at airspeeds of 85 and 95 knots. One $n_{\rm X}$ peak of 0.10g was observed during one of the collective pull-ups; the data are presented in Table LXXXIX of Appendix II. The remaining data concerning collective pull-ups during level flight are presented in Tables LXXX and XCII of Appendix II.

TABLE XXXVI. TIME FOR TORQUE VERSUS ROTOR SPEED BY GROSS WEIGHT FOR COLLECTIVE PULL-UPS IN LEVEL FLIGHT

UCT	DOM	RLW	10	20	TORQUE 30	40	50	SUM
WGT	Kbw	TLW	10			7,,	,(,	
6000	314			• 36	• 13			• 49
7000	304					•04		• 04
	314		•14	.80	•50			1.44
	325		.26	•16	•13			• 55
	SUM		.40	.96	•63	.04		2.03
8000	314		• 09	.85	•60	•14	•03	1.71
	325		•14	. 44	•55			1.13
	SUM		.23	1.29	1.15	•14	•03	2.84
9000	314			•19		•09		• 28
	325		.24					.24
	SUM		.24	.19		.09		• 52

TABLE XXXVII.	TIME FOR	AIRSPEED	ACCELERATION VERSUS RATE
	OF CLIMB	BY GROSS	WEIGHT FOR COLLECTIVE
	PULL-UPS	IN LEVEL	FLIGHT

				AIRS	PEED AC	CELERA	TION			
WGT	R/C	-12	-9	-6	-3	3	6	9	12	SUM
6000	-300				•16	•33				•49
7000	-600		.04	• 38	•37	•12	.14			1.05
, -	-300			.52	•31	.15				•98
	SUM		•04	•90	•68	•27	.14			2.03
8000	-1200				.05					•05
	-900		•03	•07	.44					•54
	-600		.03		.44					•47
	-300			.17	1.04		•03			1.24
	300		.14		.33	.07				•54
	SUM		.20	• 24	2.30	•07	•03			2.84
9000	-300				•52					•52

TABLE XXXVIII. TIME FOR MANEUVER nz PEAKS VERSUS AIR-SPEED BY GROSS WEIGHT FOR COLLECTIVE PULL-UPS IN LEVEL FLIGHT OCCUR DUZATION VFL NZ WGT 60 1.3 1 0.02 7000 8000 90 1.2 0.01

Thirty-eight collective pull-ups, averaging 9 seconds in duration, occurred in the descent segment; these pull-ups accounted for 3 percent of the segment time. Large equal amounts of time were spent in the airspeed ranges between 40 and 70 knots and between 95 and 105 knots, as depicted in Figure 62. Twelve percent of the pull-ups occurred at gross weights from 6000 to 7000 pounds; 34 percent, from 7000 to 8000 pounds; 38 percent, from 8000 to 9000 pounds; and the remaining 16 percent, from above 9000 pounds. The distribution of time in ranges of engine torque versus rotor speed is presented in Table XXXIX; 35 percent of the pull-ups occurred above 324 rpm. Likewise, the distributions of airspeed acceleration and rate of climb are presented in Table XL; most of the pull-ups in the descent segment occurred at relatively low descent rates, although rates of descent as high as 2,100 feet per minute were ob-Two pull-ups generated n_z peaks of 1.2g, as indicated in Table CVI of Appendix II. From Table XLI, the airspeed at these peaks were 60 and 105 knots while the coincident gross weights were 8,000 and 7,000 pounds, respectively. One n_X peak of 0.10g was observed during one of the collective pullups; the data are presented in Table LXXXIX. The remaining data concerning collective pull-ups during descent are presented in Tables LXXX and XCII of Appendix II.

In contrast to the 80 collective pull-ups, only 37 cyclic pull-ups occurred during the survey. Eight pull-ups occurred in the hover mission segment, three at gross weights from 7000 to 8000 pounds; four, from 8000 to 9000 pounds; and the remaining one, from above 9000 pounds. No $n_{\rm Z}$ peaks were associated with these pull-ups. One pull-up occurred in the ascent mission segment at a gross weight in the 7000- to 8000-pound range; no $n_{\rm Z}$ peaks were generated. During the level flight segment, 15 cyclic pull-ups, averaging 13 seconds, were performed. The gross weight at these pull-ups ranged from 7000 to 8000 pounds. Vertical acceleration peaks of 1.3g for one pull-up and 1.4g for two pull-ups were generated. Thirteen pull-ups with an average duration of 19 seconds occurred in the descent mission segment; they occurred at gross weights between 6000 and 9000

pounds. Two pull-ups each generated maneuver $n_{\rm Z}$ peaks of 1.3g as shown in Table CVII of Appendix II. One gust-induced $n_{\rm Z}$ peak of 1.2g was observed; data for the occurrence are presented in Table XCI. Data for these cyclic pull-ups are contained in Tables LXXXI, XCII, and CVII of Appendix II.

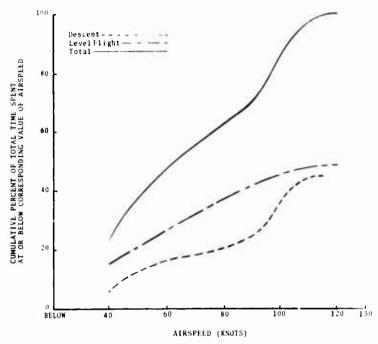


Figure 62. Cumulative Airspeed Frequency Distribution for Collective Pull-up by Mission Segment.

		VET GIII	POR	COLLECT	IVE TO	<u> </u>	- 111 21	
				ENGINE	TORQUE			
WGT	RPM	BLW	10	20	30	40	50	SUM
6000	314	.,	.29	_				.64
7000	314		•07	1.01	• 31			1.39
	325		.24		.16			•40
	334		.06					• 06
	SUM		• 37	1.01	•47			1.85
8000	314	•19	•20	•09	• 36			.84
	325		.30	• 55	• 36			1.21
	SUM	•19	• 50	.64	•72			2.05
9000	3:4		•10	•17	•42			.69
	325		.14	.07				.21
	SUM		. 24	.24	• 42			•90

TABLE XL. TIME FOR AIRSPEED ACCELERATION VERSUS RATE OF CLIMB BY GROSS WEIGHT FOR COLLECTIVE PULL-UPS IN DESCENT.

				ATDS	PEED AC	CELEDA	TION			
WGT	R/C	-12	-9	-6	-3	3	6	9	12	SUM
6000	-1800	-12	- 7	-0	• 35	,	•		•	.35
8000	-1500				• > >					•
	-1200									
1	-900									
	-600				.29					.29
	5UM				.64					.64
Į	2014				•04					• • •
7000	-1200				.10					•10
1	-900				.60					•60
	-600				.20					.20
	-300			.49	.46					.95
	SIJM			.49	1.36					1.85
1										
8000	-2100				.07					•07
	-1800				.05					•05
]	-1500				.26					•26
	-1200				.25					• 25
	-900			•03	.25					.28
i	-600			•13	.19	• 05				•37
	-300		•02	.25	•50					•77
1	SUM		•02	•41	1.57	• 05				2.05
	1500				.10					•10
9000	-1500				• 1 (• • •
	-1200				.10					•10
	-900			10						•53
1	-600			•10	.43					.17
1	-300				.17					90
1	SUM			•10	.80					• 711

TABLE XLI. TIME FOR MANEUVER $n_{\rm Z}$ PEAKS VERSUS AIRSPEED BY GROSS WEIGHT FOR COLLECTIVE PULL-UPS IN DESCENT

WGT 7000				DURATION 0.02
9000	60	1.2	1	0.01

Finally, the cumulative frequency distribution of airspeed for collective and cyclic pull-ups is presented in Figure 63. Most of the collective pull-ups occurred at airspeeds between 40 and 60 knots and between 90 and 100 knots, and most of the cyclic pull-ups occurred at airspeeds below 40 knots and between 80 and 90 knots.

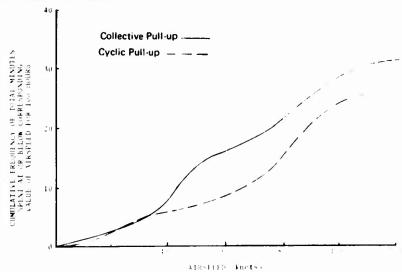


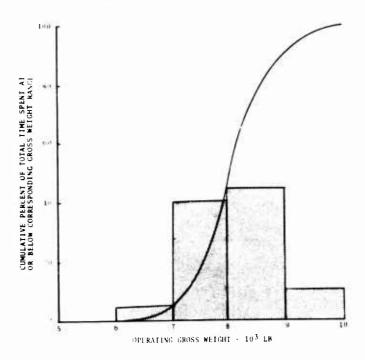
Figure 63. Comparison of Cumulative Airspeed Frequency Distribution for Collective Pull-up With That for Cyclic Pull-up.

Flares

The flare flight condition was processed as a collective pullup which occurred before a landing or a hover. It is characterized by the increase in engine torque and the decrease in rate of descent. This flight condition occurred during the level flight and descent mission segments during this operational survey.

Fifty-one flares lasting a total of 15.2 minutes were conducted during the descent mission segment; the flares accounted for 7 percent of the time spent in this mission segment. The average flare duration was approximately 18 seconds. The distribution of gross weight during flares was normally divided among the gross weight ranges, as shown in Figure 64. Most of the flares occurred at airspeeds below 60 knots. During many of the flares, the normal operating rotor rpm limit of 324 rpm was exceeded; 40 percent of the time was spent in the 325 to 334 rpm range. Figure 65 presents a histogram and the cumulative frequency distribution for engine torque during the 51 flares; practically all of the time was spent below 40 psi. During these flares, the rate of descent varied from 0 to 1,200 feet per minute. As shown in Figure 66, the descent rate decreased as gross

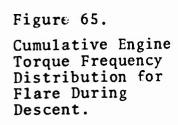
weight increased. No n_Z peak outside the threshold of 0.8g to 1.2g was experienced; all of these flares were conducted gradually to minimize maneuver loads. One n_χ peak of 0.10g was observed during one of the flares; the data are presented in Table LXXXIX. The data discussed above are presented in Tables LXXXII and CVIII of Appendix II.

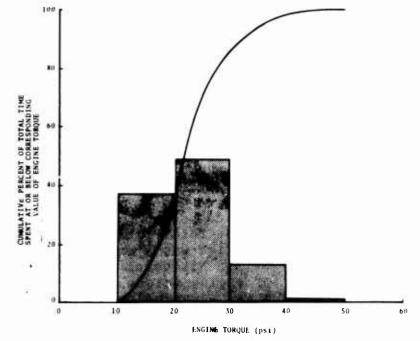


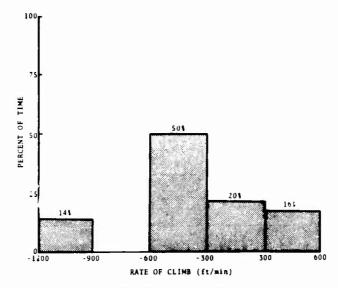
P. Pinks . Whitehall whitehall and the

Figure 64.

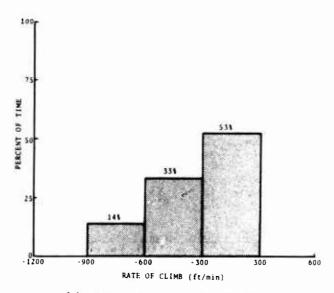
Cumulative Gross Weight Frequency Distribution for Flare During Descent.





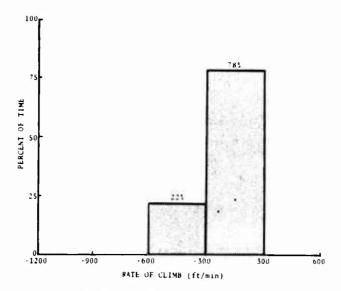


a) 6000 Lb. - 7000 Lb.

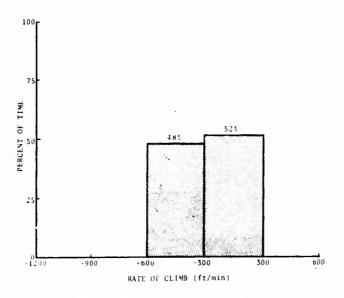


b) 7000 Lb. - 8000 Lb.

Figure 66. Percentage of Time Distributed in Rate of Climb for Flare by Gross Weight.



c) 8000 Lb. - 9000 Lb.



d) 9000 Lb. - 10000 Lb.

Figure 66 - Concluded.

During this survey, two flares occurred during the level flight mission segment. One of these flares occurred within the 7000- to 8000-pound gross weight range; the other, within the 8000- to 9000-pound range. In both instances, the change in altitude prior to the flare was negligible and the airspeed was low. Neither of these flares had an n_z peak outside the editing threshold. These data are listed in Tables LXXXII and CVIII of Appendix II.

Steady-State Conditions

The steady-state flight condition represents operation when airspeed, torque, rotor speed, and controls are steady or varying slightly about a steady mean. Steady-state conditions occurred in all mission segments and represented the most frequent flight condition by a large margin as depicted in Figure 41. These occurrences are discussed briefly in the following paragraphs.

During ground operations, 154 steady-state conditions occurred with a 1.4-minute average duration. Data for these operations are contained in Tables LXXXIII and CIX of Appendix II.

During the hover mission segment, 96 steady-state conditions occurred and lasted approximately 25 seconds on the average. Figure 67 presents the distribution of these conditions in gross weight ranges, and Figure 68 does the same in engine torque ranges. One percent of the time during the steady-state condition was spent above the engine torque limit of 50 psi. Approximately 36 percent of the steady-state operations occurred at rotor speeds above the normal operating limit of 324 rpm. No gust- or maneuver-induced $n_{\rm Z}$ peaks were observed during this mission segment. One $n_{\rm X}$ peak of 0.10g was observed during steady state havering and the data are presented in Table LXXXIX. Data for the steady-state conditions in hover are contained in Tables LXXXIII and CIX of Appendix II.

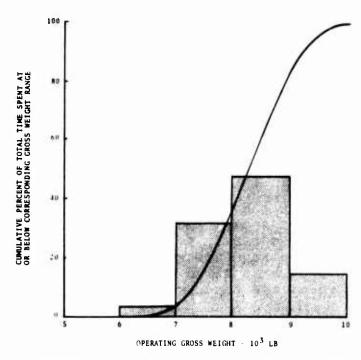


Figure 67. Cumulative Gross Weight Frequency Distribution for Steady-State Hover.

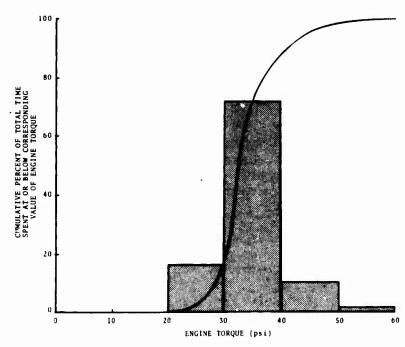


Figure 68. Cumulative Engine Torque Frequency Distribution for Steady-State Hover.

Within the ascent mission segment, 185 steady-state conditions occurred and lasted about 1.2 minutes on the average. From Figure 69, the time within the airspeed ranges from 60 to 100 knots was fairly evenly divided with a slight peak in the ranges of 85 and 90 knots. Figures 70 and 71 present the frequency distribution of time within ranges of gross weight and engine torque for the steady-state condition in the ascent mission segment. Once again, about one percent of the time was spent above the transmission torque limit. Approximately 36 percent of the steady-state operations occurred at rotor speeds above the normal operating limit. Figure 72 presents the frequency distribution for rate of climb; as can be seen, as gross weight increases, the amount of time spent at the higher ascent rates decreases. Fifty gust-induced normal nz peaks occurred during steady-state operations in the ascent mission segment; they ranged from 0.4g to 1.3g and lasted a total of 34 seconds. Three ny peaks of -0.10g were observed, one coincident with an nz peak of 0.8g. Data for the steadystate operation in ascent are contained in Tables LXXXIII. XC, XCI, and CIX of Appendix II.

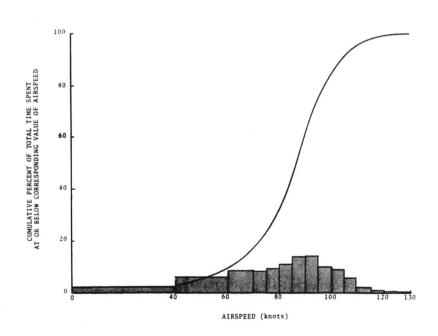


Figure 69. Cumulative Airspeed Frequency Distribution for Steady-State Ascent.

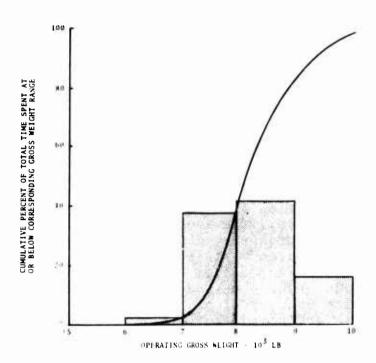


Figure 70. Cumulative Gross Weight Frequency Distribution for Steady-State Ascent.

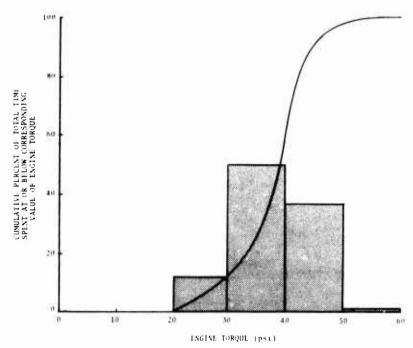


Figure 71. Cumulative Engine Torque Frequency Distribution for Steady-State Ascent.

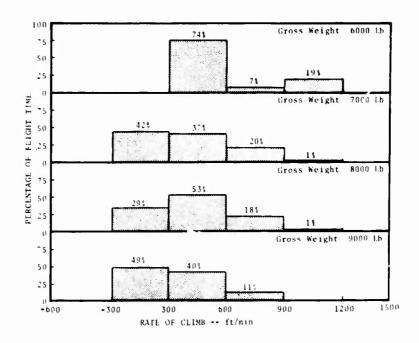


Figure 72. Percentage of Time Distributed in Rate of Climb for Steady State in Ascent by Gross Weight.

During the level flight mission segment, 444 steady-state conditions occurred; their average duration was 2.8 minutes. The frequency distribution for airspeed is presented in Figure 73; significant operations occurred at airspeeds between 80 and 119 knots. The gross weight frequency distribution for level flight steady-state operations is presented in Figure 74. within torque ranges is normally distributed about the 30-psi range as shown in Figure 75. Approximately 23 percent of the steady-state operations occurred at rotor speeds above the normal operating limit. Slight variations in the rate-ofclimb data may be noted in Table LXXXIII of Appendix II, but these variations represen' only about 0.1 percent of the time. During the level flight mission segment, 110 gust-induced vertical acceleration peaks occurred; they ranged from 0.6g to 1.3g and lasted a total of 63 seconds. Eleven n_v peaks ranging from -0.15g to 0.10g were observed; three of these peaks were coincident with gust induced n_z peaks. Data for steady-state operation in level flight are contained in Tables LXXXIII, XC, XCI, and CIX of Appendix II.

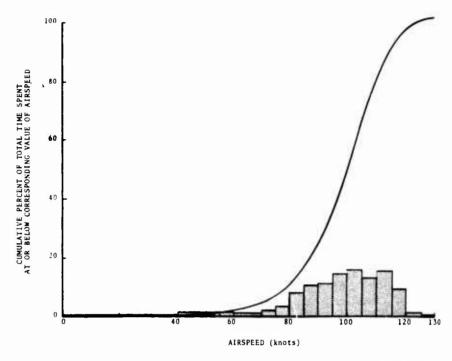


Figure 73. Cumulative Airspeed Frequency Distribution for Steady-State Level Flight.

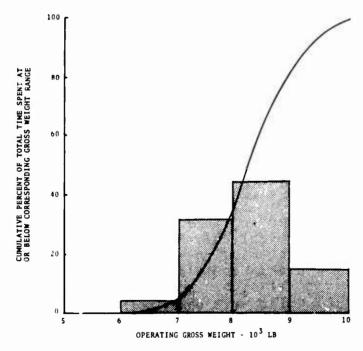


Figure 74. Cumulative Gross Weight Frequency Distribution for Steady-State Level Flight.

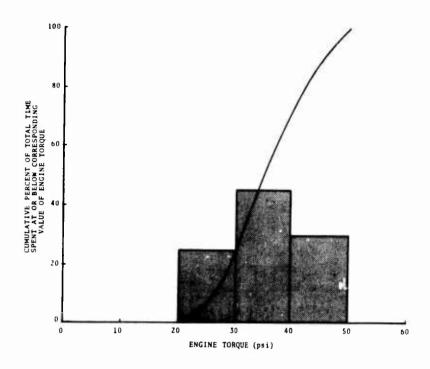


Figure 75. Cumulative Engine Torque Frequency Distribution for Steady-State Level Flight.

Within the descent mission segment, 207 steady-state conditions occurred, lasting about 44 seconds on the average. From Figure 76, the time within the airspeed ranges from 40 to 120 knots was fairly evenly divided; a slight peak occurred in the ranges of 95 to 100 and 100 to 105 knots. Figures 77 and 78 present the frequency distributions of time within ranges of gross weight and torque. Approximately 31 percent of the steadystate operations occurred at rotor speeds above the operating level. Figure 79 presents the frequency distribution for the rate of steady-state descents. While most of the time was spent in the ranges from -300 to -900 feet per minute, descents at rates as high as 2100 feet per minute were observed. Nineteen gust-induced nz peaks occurred during the level flight mission segment; they ranged from 0.6g to 1.4g and lasted a total of 16 seconds. Seven n_v peaks ranging from -0.15g to 0.10g were observed; four of these peaks were coincident with gust-induced n_z peaks. Data for steady-state operation in descent are contained in Tables LXXXIII, XC, XCI, and CIX of Appendix II.

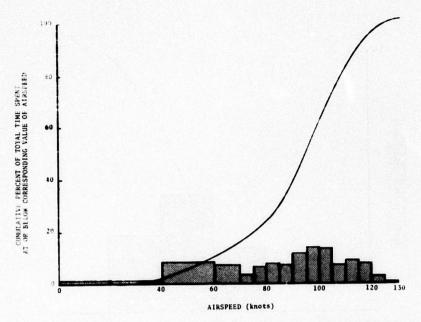


Figure 76. Cumulative Airspeed Frequency Distribution for Steady-State Descent.

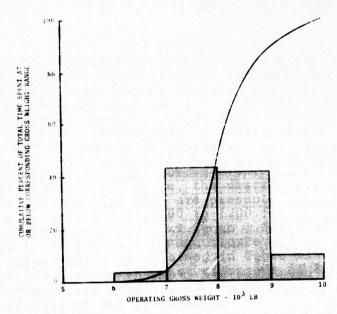


Figure 77. Cumulative Gross Weight Frequency Distribution for Steady-State Descent.

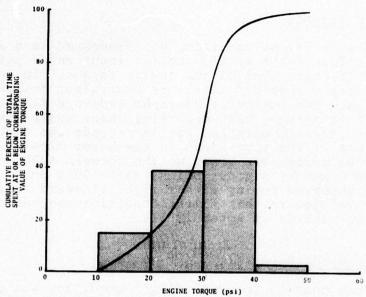


Figure 78. Cumulative Engine Torque Frequency Distribution for Steady-State Descent.

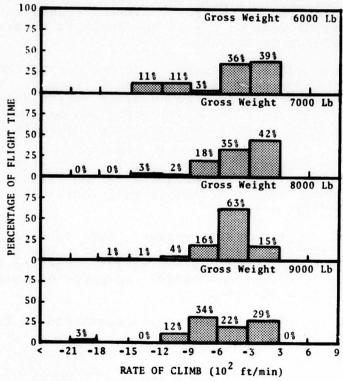


Figure 79. Percentage of Time Distributed in Rate of Climb for Steady-State Descent.

Right Sideward Flights

The right sideward flight condition was processed as a maneuver with a distinct right cyclic control input and a possible increase in collective control and engine torque. In operational usage, right sideward flight is equivalent to hovering in a cross wind. Two instances of right sideward flight were noted during this survey, both occurring under gusty wind conditions. Their average duration was 34 seconds and they represented 2 percent of the time spent in the hover mission segment. One condition occurred at a gross weight between 8000 and 9000 pounds and the other at a gross weight above 9000 pounds. No nz peaks were observed during either right sideward flight condition. Data related to this flight condition are contained in Tables LAXXIV and CX of Appendix II.

Longitudinal Control Reversals

The longitudinal control reversal flight condition was processed as a maneuver which resulted from a movement of the longitudinal cyclic control greater than 10 percent of full deflection and not related to any other flight condition. Usually, such control reversals occurred during gusty mission segments. The nine longitudinal control reversals will be discussed by mission segment in the following paragraphs.

Four longitudinal control reversals occurred during the hover mission segment; these reversals averaged 9 seconds. Two occurred within the 7000- to 8000-pound gross weight range and two, within the 8000- to 9000-pound range. No gust- or maneuverinduced n_7 peaks were observed during these reversals.

One reversal of 8 seconds duration occurred during the ascent mission segment; the gross weight at that time was within the 8000- to 9000-pound range. Again, no gust- or maneuver-induced n_7 peaks were observed.

Within the level flight mission segment, four control reversals occurred; they averaged 8 seconds in duration. One occurred within the 6000- to 7000-pound gross weight range and three within the 8000- to 9000-pound range. No gust- or maneuverinduced $n_{\rm Z}$ peaks were observed.

Data related to the above maneuvers are contained in Tables LXXXV and CXI of Appendix II.

Lateral Control Reversals

The lateral control reversal flight condition was processed as a maneuver which resulted from a movement of the lateral cyclic control greater than 10 percent of full deflection and not related directly to any other flight condition. Usually, such control reversals occurred during gusty mission segments. The eight lateral reversals will be discussed by mission segment in the following paragraphs.

Two lateral control reversals occurred during the hover mission segment and lasted approximately 7 seconds on the average. One occurred at a gross weight between 7000 and 8000 pounds and the other at a gross weight between 8000 and 9000 pounds. No gustor maneuver-induced $n_{\rm Z}$ peaks were observed during these reversals. However, one $n_{\rm Y}$ peak of 0.10g was observed during the 8000- to 9000-pound lateral reversal.

Two lateral reversals also occurred during the ascent mission segment and lasted approximately 5 seconds on the average. One occurred at a gross weight between 7000 and 8000 pounds and the other at a gross weight above 9000 pounds. No gust- or maneuver-induced n_z peaks were observed during the reversals.

Within the level flight mission segment, three control reversals occurred; they averaged 8 seconds in duration. One occurred at a gross weight between 7000 and 8000 pounds and the other at a gross weight between 8000 and 9000 pounds. No gustor maneuver-induced n_z peaks were observed during the reversals. One reversal of 13 seconds duration occurred during the descent mission segment; the gross weight at the time was above 9000 pounds. Again, no gust- or maneuver induced n_z peaks were observed. In editing this maneuver, consideration was given to identifying it as a left turn because of its duration and the lack of gusty conditions.

Data related to the above maneuvers are contained in Tables LXXXVI and CXII of Appendix II.

Transients

The transient flight condition occurred during ground operations when the torque and rotor rpm varied rapidly. In general, these periods were associated with the acceleration or deceleration of the rotor system. They occurred before takeoffs and after touchdowns. They also occurred between flights when the rotor system was slowed down; an example of transients is presented in Figure 80; there were 201 transients during the ground mission segment and 4 during the transition mission segment. Data related to these transients are contained in Tables LXXXVII and CXIII of Appendix II.

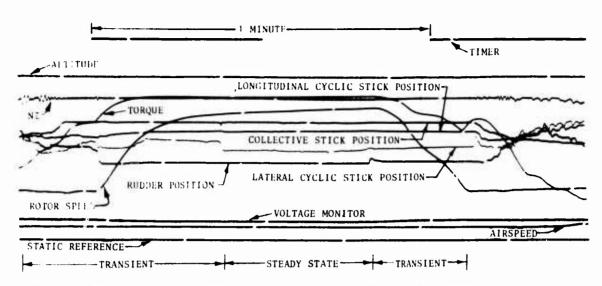


Figure 80. Oscillogram Showing Transient Condition Between Touchdown and Takeoff.

FCR DATA SUMMARY

The intent of the FCR technique is to provide better resolution of the operational usage data and to present these data in a manner which would be more understandable to a fatigue analyst. The foregoing presentations discussed each flight condition in detail, but no attempt was made to construct an operational usage spectrum similar to those presented in References 5 or 7, because it was beyond the scope of the present study. However, a few brief comparisons are presented in the following paragraphs so that portions of the Reference 7 fatigue spectrum and the FCR data may be qualitatively compared.

The first comparison is based on the seven mission segments used in this program. By apportioning the Reference 7 design spectrum among the seven segments, the spectrum may be compared with the FCR data as depicted in Figure 81. (The FCR data was previously presented in Figure 40.) As can be seen in Figure 81, little similarity exists between the two sets of data. The closest agreement is for the hover mission segment. More time was spent in the ascent and descent segments during this survey than the time allocated in the Reference 7 spectrum. The two ground conditions would agree more closely if the steady-state and ground taxi operations in the FCR data, accounting for 10 percent of the recorded time, were discounted. The remaining 3 percent of the time in Figure 81 was spent in transient rotor operation including rotor starts and stops. Eliminating those transients which did not represent complete starts and stops would bring the spectrum and FCR data in close agreement.

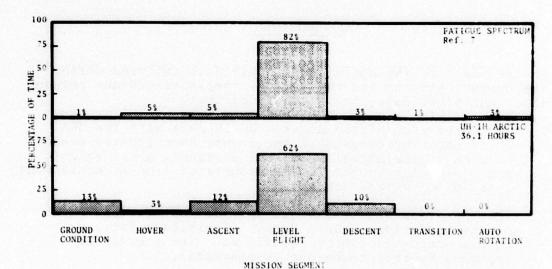


Figure 81. Comparison of Percentages of Time in Seven Mission Segments of FCR Data With Those of Reference 7 Fatigue Spectrum Data.

Four types of flight conditions -- starts, touchdowns, turns, and pull-ups--are briefly compared as follows: During the survey, rotor starts occurred about once per hour while the design spectrum is based on the assumption of four starts per hour, a conservative assumption. The comparison of the distribution of touchdowns by gross weight for each spectrum shows that the design spectrum has more touchdowns occurring at higher gross weight landings. For the Reference 7 spectrum, the distribution of gross weight is 10 percent of the time at 6500 pounds. 30 percent at 7500 pounds, 45 percent at 8500 pounds, and 15 percent at 9500 pounds. During this survey, the distribution was 6 percent for the 6000- to 7000-pound range; 45 percent for the 7000- to 8000-pound range, 38 percent for the 8000to 9000-pound range, and 11 percent for gross weights above 9000 pounds. With respect to maneuvers such as turns, close agreement exists since the design spectrum is based on the assumption that 2 percent of the time occurs in both left and right turns; during this survey, left turns occurred 3 per-With respect cent of the time and right turns, 3.8 percent. to collective and cyclic pull-ups in the FCR data, close agreement apparently exists since they occurred 0.4 and 0.3 percent of the time, respectively, versus 0.25 percent for each type of pull-up from the design spectrum. This close agreement is misleading since the pull-ups observed during the survey were very mild when compared with those used in Reference 7. Only 2 of 45 collective pull-ups and 5 of 29 cyclic pull-ups produced n_z peaks, none above 1.4g.

CONCLUSIONS

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On the basis of the operational usage data gathered during the current program and the various comparisons drawn between these and other data, it is concluded that:

- 1. The comparison of the Alaskan UH-1H data with the SEA UH-1H data indicates that the former have greater amounts of time at the higher values of airspeed, gross weight, and engine torque but lesser amounts of time at equivalent rates of climb and descent.
- 2. The FCR processing technique provides better resolution of the operational usage data. Significant fatiguedamage maneuvers can be identified. The processing of the data by this technique is practical.
- 3. The maneuver-induced normal load factors and their duration have been better defined.
- 4. The FCR technique needs additional refinements such as the presentation of airspeed in terms of percentage of V_{n_e} and adjusted for applicable V_{n_e} -density altitude restrictions.

RECOMMENDATIONS

The following recommendations are based upon a study of the data presented in this report:

- 1. The number of mission segments should be limited to the following six: ground operation, hover, ascent, level flight, descent, and autorotation.
- 2. The prime aircraft manufacturer and the operational usage survey contractor should coordinate their efforts at the beginning of a survey to establish recorded parameters, parameter ranges, and presentation formats.
- 3. An operational mission profile should be developed from the FCR data presented herein and compared with the design mission profile to improve the structural design criteria for future Army helicopters.

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APPENDIX I FOUR MISSION SEGMENT TABULAR DATA PRESENTATION

Tables XLII through LXXII present the 88 hours of operational data processed by the Four Mission Segment technique.

Two tabular formats present the flight time distributed among the coincident ranges of two or more parameters and the frequency of acceleration peaks and incremental boost tube load peaks distributed among the coincident ranges of other variables. All times shown were rounded to the nearest tenth of a minute. Since in each subtable the total under the time column was computed and then rounded, a total may not agree with the sum of the rounded times in each line. Times between 0 and 0.05 minute were printed as ".0", and times equal to zero were printed as "0.0". Tables having neither occurrences nor time were not printed. headings are arranged so that the first-mentioned variable refers to the horizontal ranges at the top of the table and the second-mentioned variable refers to the vertical ranges at the left of the table. Where a third or a fourth variable is given, it is followed by its range in the heading. As an example, the heading "MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 6000 BY MISSION SEG. ASCENT" indicates the time spent in coincident ranges of altitude and airspeed at a weight between 6000 and 7000 pounds during the ascent mission segment. All printed range values are the lower limits.

TABLE XLII. TIME FOR ALTITUDE VERSUS AIRSPEED BY WEIGHT AND MISSION SEGMENT

	MINUTES	FOR AL	TITUDE	VS AIRS	PEED BY	WEIGHT	6000•	BY	MISSION	SEG.	ASCENT
	LESS	-6000	-3000	0	3000	6000	SUM				
LESS	CESS	-0000	2.0	·	3000	0000	2.8				
40		. 4	2.5				2.8				
60	•2	1.4	2.2	• 3			4.1				
70	• 2	•2	2.1	• 2			2.6				
75		1.0	5.1	.6			6.6				
		2.1	7.5	.8			10.3				
80		2.6	1.9	1.6			6.1				
85		1.9	5.2	.3			7.4				
90			4.2	•5			5.1				
95		.4	4.3	.1			4.6				
100		١.	4.0	• 2			4.5				
105		د و	2.5	•3			2.8				
110							•3				
115			•2	•1			-1				
120			•1				• 1				
125	_			, .			60.2				
SUM	•2	11.1	43.9	4.9							
	MINUTES	FOR AL	TITUDE '	VS AIRS	PEED BY	WEIGHT	6000•	BY	MISSION	SEG.	MANUVR
	LESS	-6000	-3000	0	3000	6000	SUM				
LESS		5500	. 8	.4			1.2				
40			•1	.4			.5				
60			• 2	.4			.6				
70			.3	i			.4				
75			• 3	.4			.7				
80			•1	• i			• 2				
85			• 3	i			.4				
90			. 8	1.3			2.0				
95			.3				.4				
100			. 2				• 2				
105			• 1				•1				
110			••								
SUM			3.3	3.4			6.7				
30	MANUTES	EOD 41	TITUDE 1		DEED RV	WEIGHT		RY	MISSION	SEG.	DESCNT
								<i>D</i> (2504	J
	LESS	-6000	-3000	0	3000	6000	SUM				
LESS	• 2	• 3	3.7				4.2				
40	. 8	• 3	5.5				6.7				
60	• 2	.8	3.4				4.4				
70	• 3	. 1	2.1	-			2.4				
75		1.3	5.3	7			7.3 11.4				
60	• 4	4.2	5.6	1.2							
85	•1	1.5	4 • 1	1.6	•		7.3 6.9				
90	•2	• 1	5.1	1.2	• 3		7.0				
95	•1	•7	3.9	1.8			9.8				
100	• 3	. 9	7.2	1.1	•4		4.8				
105			4.0	• 7			7.6				
110		1.3	6.2	•1			3.2				
115		1.4	1.9	•							
120		•6	• 1	•1			.8				
125	9.4	12 6	E	•0	1.2		84.0				
SUM	2.6	13.5	58.2	8.6	104		0-40				

TABLE XLII - Continued MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 6000. BY MISSION SEG. STEADY LESS -6000 -3000 3000 SUM 0 6000 LESS • 9 15.2 16.9 40 3.9 .2 4.1 60 1.0 . 2 1.2 70 • 3 . 9 1.2 75 4.2 4.2 9.1 80 9.4 85 . 9 13.1 13.9 90 24.7 8.1 32.8 38.4 95 16.8 55.2 100 5.5 1.4 41.2 15.1 63.2 105 3.4 3.9 17.8 4.5 29.5 15.2 .6 110 .8 20.9 15.3 115 .6 15.9 120 6.0 6.0 125 SUM 16.2 201.3 10.1 46.8 274.4 MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 6000. BY MISSION SEG. SUM -6000 LESS. -3000 0 3000 6000 SUM LES5 1.1 1.9 21.7 25.0 40 8.3 • 8 4.6 .4 14.1 .7 60 .4 3.2 5.9 10.3 1.7 70 • 3 .6 5.4 6.6 75 2.3 14.8 18.8 80 6.3 22.3 2.4 31.4 85 • 1 4.0 19.5 4.2 27.7 •2 90 2.0 95.8 10.9 49.1 95 •1 46.8 19.2 •5 1.1 67.8 100 1.7 6.4 52.9 16.3 .4 77.8 25.8 105 3.4 4.2 5.4 38.8 110 2.1 23.9 1.0 31.4 115 1.4 17.4 .7 19.5 120 .6 •1 6.2 6.9 125 •0 SUM 12.9 40.8 306.7 63.7 1.2 425.3 MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 7000. BY MISSION SEG. ASCENT SUM LESS -6000 -3000 3000 6000 8.6 15.1 LESS 2.2 6.2 32.0 5.3 9.9 24.1 2.5 2.1 40 4.3 9.1 60 .6 3.2 11.3 2.5 • 3 26.9 70 7.2 8.1 1.1 .5 20.0 1.6 1.6 . 3 75 9.0 28.7 2.7 1.9 1.3 13.6 44.1 80 1.1 5.7 23.9 11.1 1.8 .6 .7 85 6.9 32.5 12.6 1.1 53.9 • 1 2.8 6.8 54.3 90 32.0 1.6 11.0 1.5 64.8 95 36.9 2.1 9.6 14.6 100 8.8 22.0 5.8 4.2 42.2 105 5.1 21.7 2.8 1.7 31.3 11.5 18.8 3.9 110 3.2 115 • 3 7.3 2.0 9.6 .7 120 .6 • 1 • 1 125 2.0 451.7 SUM 17.5 70.9 245.7 96.6 19.0

TABLE XLII - Continued MINUTES FOR ALTITUDE VS AIRSPEED BY WFIGHT 7000. BY MISSION SEG. MANUVR SUM 0 3000 6000 LESS -6000 -3000 LESS 1.5 1.6 40 1.4 2.0 • 3 .4 60 1.4 2.1 • 2 70 1.0 .6 1.8 75 .8 .8 1.7 .0 80 .5 • 5 1.1 .8 85 • 1 2.0 .9 90 . 1 1.5 . 8 95 • 5 • 1 100 • 0 • 1 105 . 2 • 3 • 1 110 . 3 • 1 115 SUM 2.1 10.1 5.1 17.2 MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 7000. BY MISSION SEG. DESCRIT LES5 -6000 -3000 0 3000 6000 SUM 30.1 LES5 2.9 8.5 14.5 17.4 38.4 3.7 5.5 10.9 40 5.0 60 1.5 3.0 12.4 .8 22.8 70 1.5 8.5 4.2 14.9 .6 • 1 4.0 7.5 75 1.4 2.0 8.4 • 1 16.0 • 1 80 1.5 13.0 23.5 . 8 • ì 85 2.6 1.3 11.4 9.6 1.0 26.1 90 1.8 2.6 18.1 6.6 2.8 .6 32.6 95 3.9 51.4 5.8 8.3 21.5 11.6 100 1.2 8.2 20.5 14.3 2.1 46.3 105 .9 .7 50.0 26.7 7.9 2.4 11.3 4.7 1.0 110 29.9 4.7 10.8 51.7 115 7.8 17.6 11.4 12.0 .6 49.5 120 • 3 4.9 1.2 6.5 125 97.8 SUM 72.1 225.0 35.8 5.4 460.0 7000. BY MISSION SEG. STEADY MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 6000 SUM 0 3000 -3000 LESS. -6000 79.9 15.1 LESS 9.9 14.7 40.1 14.2 •6 3.0 8.9 1.8 40 8.5 14.3 1.8 3.9 60 8.2 4.6 6.5 70 1.0 •4 17.0 2.1 75 8.4 •1 2.7 7.5 26.3 20.0 49.1 80 2.3 83.7 28.1 44.3 1.2 85 51.2 1.3 .6 169.9 24.4 67.3 90 25.1 294.1 1.2 8.5 95 42.8 177.4 50.2 14.1 26.0 29.0 18.4 • 3 230.1 100 11.3 145.1 20.2 9.9 87.6 .9 162.8 105 37.9 6.3 103.1 22.8 40.3 16.7 20.2 1.0 110 48.5 17.3 20.6 6.6 115 1.5 3.0 .6 120 125 77.2 196.4 662.5 268.6 59.0 4.3 1278.0 SUM

TABLE XLII - Continued MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 7000. BY MISSION SEG. SUM LES5 -6000 -3000 0 3000 SUM LESS. 15.0 31.9 71.2 25.6 143.6 7.0 37.6 12.5 2.7 40 18.8 78.7 60 2.2 10.6 33.6 16.2 3.3 .3 66.1 70 18.9 17.5 1.2 44.9 3.2 3.6 .5 75 3.9 31.4 63.7 20.3 1.5 6.2 63.5 80 4.6 7.4 39.0 2.5 117.9 85 10.8 10.6 72.8 67.8 3.3 165.8 .5 90 38.1 65.5 259.3 29.7 118.9 5.6 1.4 95 76.9 16.4 60.8 236.6 19.5 1.5 411.8 100 13.8 43.1 187.8 49.3 24.7 • 3 318.9 105 12.3 7.2 54.5 136.2 30.9 3.3 244.4 31.6 24.6 110 2.6 82.0 31.2 2.0 174.0 107.6 115 • 1 25.4 45.4 20.0 16.0 .6 1.3 120 7.0 2.0 10.2 125 SUM 118.6 341.4 1143.2 468.2 123.9 11.7 2207.0 MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 8000, BY MISSION SEG. ASCENT LESS -6000 -3000 0 3000 6000 SUM LES5 2.5 6.4 7.1 1.3 17.3 1.5 40 4.0 18.5 8.4 4.6 1.4 4.6 7.3 6.9 60 20.2 70 . 2 3.1 6.5 5.3 15.1 75 . 3 5.0 12.9 3.9 22.0 8.4 . 2 80 1.3 9.7 4.2 23.7 85 . 8 3.1 6.6 . 8 24.9 90 2.2 14.9 2.6 9.9 3.8 34.8 12.4 95 1.8 23.8 4.2 8.4 1.2 51.8 100 1.0 1.0 11.9 3.1 25.3 105 10.1 3.0 . 8 15.4 110 2.2 3.0 .1 115 • 2 • 1 .2 .5 120 • 1 • 2 • 3 125 SUM 13.0 108.3 95.3 39.5 16.5 2.7 275.3 8000. BY MISSION SEG. MANUVR MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT SUM 6000 -6000 -3000 0 3000 • 1 1.1 2.8 1.7 LESS 6.1 3.2 1.3 40 . 8 .8 4.9 .3 1.9 1.9 60 1.6 1.2 1.2 4.0 70 .0 .4 3.0 75 • 3 .8 3.2 1.5 •7 80 .3 .4 85 .3 1.0 .7 2.2 .7 1.2 90 .1 3.1 95 .9 2.1 • 1 •2 100 • 3 2.1 1.6 .7 1.6 . 5 105 . 8 1.0 110 • 1 • 2 • 2 115 120 36.9 10.2 13.3 SUM 2.2 11.3

TABLE XLII - Continued MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 8000, BY MISSION SEG. DESCRIT -6000 -3000 0 3000 6000 SUM 4.6 4.3 2.5 LESS 3.2 3.7 3.3 14.8 20.4 4.0 5.9 40 6.3 60 1.0 3.1 3.3 9.9 70 1.0 1.1 2.2 1.9 6.2 .4 3.3 75 2.5 3.4 9.5 . 9 80 4.2 3.6 3.6 12.3 85 1.2 9.9 6.2 6.5 23.9 90 . 9 15.7 11.5 7.2 35.2 20.1 9.6 95 3.0 • 3 45.2 12.3 100 15.4 38.0 2.2 14.0 5.6 105 8.0 12.2 1.6 23.1 110 .3 7.8 4.4 .4 12.9 .5 115 1.5 • 1 2.1 120 • 3 • 1 125 SUM 99.2 19.2 82.2 52.3 1.0 253.9 MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 8000. BY MISSION SEG. STEADY LESS -6000 -3000 0 3000 6000 SUM LESS 33.7 11.7 18.6 6.9 70.8 40 2.7 1.2 1.0 1.0 6.0 60 2.0 2.1 2.3 3.8 10.2 70 .4 4.3 2.6 8.1 15.4 75 5.6 1.6 8.8 16.5 32.6 80 1.4 13.9 24.2 42.9 82.4 85 25.5 53.7 70.8 3.6 153.7 90 4.5 85.2 44.0 42.7 1.6 .7 178.6 95 10.8 52.6 139.1 62.5 1.7 3.5 270.2 100 107.1 153.4 305.4 30.7 3.6 10.5 105 93.4 .3 64.2 7.0 • 6 5.8 171.4 110 56.3 23.7 81.7 115 23.4 22.0 45.4 120 4.6 4.6 125 SUM 39.4 451.2 615.1 293.8 7.4 21.4 1428.4 MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 8000. BY MISSION SEG. SUM LESS -6000 -3000 0 3000 SUM LESS 17.4 30.4 45.5 12.5 105.7 14.5 40 9.0 14.7 12.8 51.0 14.7 60 4.8 12.0 45.2 40.6 70 1.7 8.0 14.6 16.4 25.4 39.7 67.5 75 2.6 13.9 25.4 67.2 80 51.4 3.8 26.6 •2 121.6 85 49.6 6.0 81.1 . 8 205.0 4.1 90 7.6 74.8 107.7 54.4 250.9 370.4 95 15.5 97.4 165.9 76.5 4.7 134.6 100 3.4 177.3 37.6 7.4 10.5 370.8 111.6 80.2 105 10.2 5.8 1.6 211.5 110 • 3 66.3 31.3 2.1 100.9 .9 25.1 .5 115 22.6 48.2 5.0 120 5.3

24.1 1994.6

395.8

125 SUM

73.7 670.0 805.9

	MINUTES	FOR AL	TITUDE	VS AIRS	PEFD BY	WEIGHT	9000•	PY	MISSION	SEG.	ASCEN
	LESS	-6000	-3000	0	3000	6000	SUM				
ESS	3.1	3.1	4.3	• 3			10.8				
40	2.0	2.4	4.6	.1			9.1				
60	2.3	2.1	3.3	• 1			7.8				
70	2.1	2.6	3.3	<u>.</u>			8.0				
75	2.1	6.4	2.1	3.4			14.0				
80 85	5.3 2.1	10.5	9.7	1.1 3.5			26.6 31.4				
90	1.5	13.6	12.1	4.3			26.9				
95	2.1	•9	. 4	2.3			5.8				
100	1.7	1.2	•1	1.0			4.1				
105	1.6	.4	• •				2.0				
110		•									
SUM	25.9	49.1	55.1	16.2			146.3				
	MINUTES	FOR AL	TITUDE	VS AIRS	PEED BY	WEIGHT	9000•	BY	MISSION	SEG.	MANUV
	LESS	-6000		0	3000	6000	SUM				
60											
70	• 0						•0				
*5	• 1						• 1				
8"	• 1						• 1				
85	• 2						• 2				
90 5UM	. 5										
,,,	• 2						•5				
	MINUTES	FOR AL	TITUDE	VS AIRS	PEED BY	WEIGHT	9000•	BY	MISSION	SEG.	DESCN
	_E55		-3000	0	3000	6000	SUM				
E\$5	•6	1.0	2.2	• 3			4.1				
40	1.6	• 4	4.0	• 3			6.2 3.2				
60 70	•7	•1	1.6	.7			1.6				
75	.4	.5	1.5	.3			2.7				
80	. 9	2.9	1.3	9.0			14.2				
85	. 6	2.3	1.3	11.3			15.7				
90	1.2	6.4	5.1				12.6				
95	• 1	3.9	4.0	4.2			12.2				
100	• 1	2.8	5.0	6.7			14.6				
105	• 2	•6	4.8				5.5				
110	• 3	1.9	• 4				2.7				
115	•6	1.8	• 1				2.5				
120	• 3	• 3					•6				
125	7.0	26 1	22.2	22.2			00 4				
SUM	7.9	25.1	32.2	33.2			98.4				

TABLE XLII - Concluded MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 9000. BY MISSION SEG. STEADY LESS -6000 -3000 0 3000 6000 SUM LESS 5.5 4.0 13.0 3.6 1.9 2.1 40 • 2 60 .5 3.6 5.3 1.3 • 3 6.7 70 6.4 75 .4 8.6 1.8 11.1 80 3.1 1.3 9.0 11.8 25.2 4.9 5.7 23.5 34.9 69.1 85 1.5 23.6 90 19.7 16.3 61.1 •6 95 7.2 31.8 4.7 44.3 .9 9.5 100 64.1 3.0 77.6 10.8 105 34.4 6.8 14.9 1.4 110 22.9 38.2 62.5 6.3 115 15.8 22.1 120 • 3 . 9 125 SUM 54.4 114.6 184.9 435.5 81.6 MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 9000. BY MISSION SEG. SUM LESS -6000 -3000 0 3000 6000 SUM 9.2 7.7 LESS. 10.4 •6 27.9 40 3.6 3.0 10.5 .4 17.4 60 4.2 2.8 8.5 .8 16.3 .4 70 2.2 3.1 10.6 16.4 75 5.5 3.1 7.3 12.1 28.0 80 9.4 14.7 20.1 21.9 66.0 85 8.0 21.6 37.0 49.7 116.3 90 27.9 4.1 28.5 40.0 100.6 95 2.8 12.1 36.3 11.2 62.4 100 2.3 13.5 69.3 10.7 96.3 105 8.5 15.9 15.6 1.9 41.8 110 23.2 40.2 1.8 65.2 115 7.0 17.6 •1 24.7 120 .6 .9 1.5 125 SUM 88.6 188.9 272.2 131.1 680.7 MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT SUM. BY MISSION SEG. SUM LESS. -6000 -3000 0 3000 6000 SUM LESS 42.7 71.8 148.8 39.1 302.3 40 20.4 41.1 70.8 26.1 2.7 161.2 60 11.5 28.6 61.8 32.5 3.3 • 3 137.9 70 7.4 15.3 49.4 34.7 1.2 .5 108.5 52.8 75 11.8 27.4 83.6 1.5 177.5 .4 80 18.2 55.0 145.7 114.6 2.7 • 7 336.9 85 24.8 .5 85.8 196.8 202.7 514.8 4.1 143.4 302.4 158.8 90 41.6 10.1 3.6 659.9 95 171.4 34.8 485.7 183.9 30.3 6.2 912.3 100 21.8 197.6 487.3 113.9 32.5 863.8 10.8 186.2 257.8 105 20.7 48.3 14.5 9.1 536.6 140.1 110 139.0 30.6 27.8 31.2 2.9 371.5 115 7.1 69.4 85.5 21.3 16.0 200.0 .6 120 7.9 . 6 13.2 2.2 24.0 125 SUM 293.8 1241.1 2528.0 1058.8 150.1 35.8 5307.6

TABLE XLIII. TIME FOR LONGITUDINAL CYCLIC BOOST TUBE STEADY LOAD VERSUS COLLECTIVE BOOST TUBE STEADY LOAD BY MISSION SEGMENT

	1-1-165		-L110 95	LILL.	47 #155		ASCENT											
151	1.55	-470	-400	-350	-100	-250	-200	-190	-100	100	150	200	250	300	350	400	450	501
200 200 150 100 100 150								::	.0 .7 16.4 39.0 266.0 1.0	27.0 171.0 1.2 1.0	4.5 23.4 90.9 2.4	,2 7,1 12,7 10,2	:1 :1 1:0					34, 99, 242, 4,
,,,,							•1	.,	\$14.5	205.6	123.2	16.6	1.2					•••
	mirale S	POW 6	Y-1 MG V		a. wi?		-AMUVH											
	LFSS	-450	-400	-370	-300	-250	-400	-190	-100	100	150	200	250	300	350	400	450	SU
-300 -250 -200 -150 -100 150 200 250									.9 11.6 1.2 1.0 1.0 2 .6	01 06 103 1103 02 04 03 01	3.8 3.9 .2	3:4	.3	.,				2 32 2 1
400 400 400 50m									1/:4	•1 1•••	7.0	3,5	.,	.3				•2
					-300	-290	-200	-190	-100	100	150	200	250	300	350	400	450	SU
005 000 000 100 100 100 005 005 005 005	LESS	-450	-40"	-350	-370	-250	-200	.,	3.6 R.0 17.5 22M.4 39.8 18.7 7.7 2.8	2.5 11.2 132.7 16.3 11.6 4.7 1.8	1.0 29.2 53.9 11.0 4.1 1.1	11.0 21.2 10.2 .7 1.2 .2 .2	:1	300	330	470	-,0	3. 14. 79. 433. 49. 35. 13.
400 50#								.,	326.5	101.5	102.9	43.4	.•					•>•
	*1~0165	+(IP (r-LNG V5	corr.	av - 155		STEAUY											
30-0 250 200 150 100 100	LUSS	-450	-400	-570	-300	-250	-200	-150	3.7 66.8 155.8 934.6 7.2	7.3 115.7 747.3 13.7	13.8 89.8 296.7 9.8	200 10.0 12.6 03.9	250	300	390	400	450	374, 2047,
150 200 250 50m								4.0	.5	1.5	2.3	v1.0						2507
			*-LNG V5	-450	-300	-250	-400	-190	-100	100	150	200	250	300	350	470	450	SUP
350	LESS	30	00	-370	-300	-67"	-200	-130	.0	700	.,							
250 200 150 100 100 150 200 250 300							.l	,°,	9.0 91.2 209.2 1440.7 49.1 20.7 8.7 3.0 .6	114.7 126.0 1002.3 31.3 17.7 6.7 1.9	22.1 142.6 447.4 24.9 6.9 1.1 .7	4.5 18.7 46.7 101.7 1.6 1.7	.1 1.7 .7 .1	.,				12. 147. 393. 3038. 107. 46. 16.
490									1032.1	•1			2.9	.3				3953

TABLE XLIV. TIME FOR LATERAL CYCLIC BOOST TUBE STEADY LOAD VERSUS COLLECTIVE BOOST TUBE STEADY LOAD BY MISSION SEGMENT

				s cock.			ASCENT											
300	LESS	-490	-400	-350	-300	-290	-200	-150	-100	100	150	200	250	300	350	470	450	SU
250																		
190								1.1	27.9	7.1	21.1	3.0						34.
100								.,	440.4	79.1	10.2	• •						343
190									1.4									1
250								7.1		8/47	42.7							
									,~			•••						
	minutes		-LA1 V	COLL.	37 m15:	٠.	MANUVH											
ur	LFSS	-450	-400	-550	-300	-250	-200	-190	-100	100	150	200	250	300	350	430	450	50
90										•1								
90									1.9	2.3	.1							2:
00									2.5	,								32.
00									1.5									1:
90									.3									
90									•1	.2								
50									34.9	2.9	.1							42.
	-1-0162		-LAT VS	COLL.	ar =155		UFSCRIT											
00	LFSS	-45"	-400	-990	-300	-250	-400	-150	-100	10)	150	200	250	300	350	470	450	SUP
00									13.0									30
90							.1	100	391.9	16-1	1.3	1:2						14.
90								1.8	14.9	.,								49.
00								••	39.1									13.
CO									9.9									•
00 00																		
J=							•1	H.>	541.7	>2.2	2.0	1.5						656.
	-1	+('H' C'	-LAT V	coll.	97 715	٠.	STEAMY											
ייט	LESS	-457	-400	-350	-300	-250	-200	-150	-100	100	150	200	290	300	350	400	450	SUF
91)									40.7	29.0	12.1							97
90							.1		201.9	108-1	17.1 54.9 28.7	3.4						374
00							••	2.5	30.4	273.6	20.7							31.
00									1.5									1
90							•1	2.>	405H.3	407.4	95.7	3.0						2967
	re22 41:44162	-490	-400	-350	-400 84 -12	-250	-200	-150	-100	100	150	200	250	300	350	400	450	Su
00								25.3	-0							A STATE OF		
90									101.7	21.2	19-9	2.2						12
50							.2	2.5	336.4	27.2 131.5 389.9	15.9 77.3 47.3	7.4						3058
90							••	1.9	104.9	1.3	-7.03	•••						107
011								• • • • • • • • • • • • • • • • • • • •	10.8									16
100									1.3									1
36.									::	.2								
00									.1	. 1,20								- X X
30							.2	12.1	\$237.6	550.2	140-5	11.0						3953

TABLE XLV. TIME FOR $C_{\mbox{\scriptsize T}}/\sigma$ VERSUS μ BY RATE OF CLIMB AND MISSION SEGMENT

							==			==			
	MINITES	E00	CT 15	VE 411	0.4	DATE	O.F.	CI THE	1 566	.	MICCION	SEG	MANUAD
	MINUTES							CLIMB	LE35+	81	MISSION	3EG•	MANUVR
0.05	LESS	0.0	2	0.04	0.06	0.0	8	SUM					
0.10				•2 •7	• 1			• 2 • 8					
0.20 SUM				. 8	.1			• 9					
30.				••	••			• •					
ı	MINUTES	FOR (CT/5	VS MU	ВУ	RATE	0F	CLIMB	LESS.	BY	MISSION	SEG.	DESCNT
0.05	LESS	0.02	2 (0.04	0.06	0.0	8	SUM					
0.05				•0				•0					
0.15				• 1	• 1 • 2			•3					
0.25 SUM				• 2	• 3			• 5					
									. ===		W15610N	656	51144
	MINUTES							CLIMB	LESS.	BA	MISSION	SEG.	SUM
0.05	LESS	0.0	2 (0.04	0.06	0.0	8	SUM					
0.10				• 2 • 8	• 2			1.0					
0.20				•	• 2			• 2					
SUM				1.0	• 4			1.4					
	MINUTES	EOD	CT /S	VS MII	BY	RATE	ΩF	CLIMB	-2100.	ВУ	MISSION	SEG.	MANUVR
		0.0		0.04	0.06			SUM					
LESS	LESS	0.0		0.04			,,,						
0.05				• 1	•1			•1					
0.15				• 1	• 2			•4					
SUM				• 2	• 3			• 5					
	MINUTES	FOR	CT/5	VS MU	BY	RATE	OF	CLIMB	-2100+	ву	MISSION	SEG.	DESCNT
	LESS	0.0	2 (0.04	0.06	0.0	8	SUM					
0.10				•2				• 2					
0.20				• 3	• 4			• 7					
SUM				• 5	• 4			• 9					

							Contir					
		FOR		5 V5 MU 0.04				-2100.	BY	MISSION	SEG.	SUM
LFSS 0.05 0.10 0.15 0.20	2200			•1 •3 •3	•1		•1 •1 •5 •7					
0.25 SUM				• 7	•7		1.4					
	MINUTES	FOR	CT/S	C VS MU	ВҮ	RATE O	CLIMB	-1800,	BY	MISSION	SEG.	MANUVR
0.10	LESS	0.0	02	0.04	0.06	0.08	SUM					
0.15				• 2	•2		• 3					
5UM				• 2	•2		• 3					
	MINUTES	FOR	CT/S	5 VS MU	BY	RATE OF	CLIMB	-1800.	вч	MISSION	SEG.	DESCNT
0.05	LESS	0.0	02	0.04	0.06	0.08	SUM					
0.10				• 8	_		.8					
0.15				. 7	•5 •8		1.2					
0.25				• 2	•		• 2					
0.30 SUM				2.1	1 • 2		3.3					
	MINUTES	FOR	cT/	S VS MU	ВҮ	RATE O	CLIMB	-1800•	BY	MISSION	SEG.	SUM
0.05	LESS	0.0	02	0.04	0.06	0.08	SUM					
0.10				• 8	-		• 8					
0.15 0.20				• 9	•6 •8		1.5					
0.25				• 2	••		• 2					
0.30 SUM				2.3	1•4		3.6					
	MINUTES	FOR	CT/S	5 VS MU	ВУ	RATE O	CLIMB	-1500,	ВУ	MISSION	SEG.	MANUVR
	LESS	0.0	0.2	0.04	0.06	0.08	SUM					
LF55				• 1			• 1					
0.10				. 2	• 1		• 3					
0.15				• 3	• 1		• 4					
0.20				• 2	• 1		• 3					
SUM				.8	• 3		1.0					

			TA	BLE	XLV -	Conti	nued			
	MINUTES	FOR C	T/S VS MU	ВУ	RATE OF	CLIMB	-1500•	BY MIS	SION SEG	• DESCNT
LESS		0.02	• 2	0.06	0.08	SUM • 2				
0.05			• 1 • 6	.4		•1 1•0				
0.15			2.5	1.1		3.7				
0.20			1.8	1.8		3.6				
0.30 SUM			5.5	3.5		9.0				
	MINUTES	FOR C	T/S V5 MU	ВҮ	RATE OF	CLIMB	-1500+	BY MISS	SION SEG	• SUM
	LESS	0.02		0.06	0.08	SUM				
LESS 0.05			• 2			• 2				
0.10			.8	• 4		1.3				
0.15			2.8 2.0	1.2		4.1 3.9				
0.20			• 3	• 3		• 5				
0.30 SUM			6.3	3.8		10.1				
30**										
			T/S VS MU				-1200 • 1	BY MISS	SION SEG	MANUVR
LESS	LESS	0.02	0.04	0.06	0.08	SUM				1
0.05			•1			• 1				
0.10			• 3	•1		• 3				
0.15			•1 •1	• 1		• 1				- 1
0.25 SUM			•6	• 1		• 7				
	MINUTES	FOR C	T/S VS MU	ВҮ	RATE OF	CLIMB	-1200 • B	BY MISS	ION SEG.	DESCNT
	LESS	0.02	0.04	0.06	0.08	SUM				
LESS			. 4			• 4				
0.05			.5 2.4	. 3		•5 2•8				ł
0.15			6.8	4.0		10.9				
0.20			5.5 .3	4.5		9.9 .3				
0.30										
SUM			15.9	8.9		24.8				į

TABLE XLV - Continued MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1200+ BY MISSION SEG. SUM **SUM** LESS 0.02 0.04 0.06 0.08 LESS. . •4 • 4 0.05 .6 • 6 • 3 0.10 2.8 3.1 0.15 6.9 4.1 11.1 0.20 5.6 4.5 10.1 0.25 • 3 • 3 0.30 SUM 9.0 25.5 16.6 BY RATE OF CLIMB -900. BY MISSION SEG. ASCENT MINUTES FOR CT/S VS MU SUM LESS 0.02 0.04 0.06 0.08 0.10 0.15 • 1 • 1 0.20 • 1 • 1 0.25 SUM • 1 • 1 . 2 -900. BY MISSION SEG. MANUVR MINUTES FOR CT/S VS MU BY RATE OF CLIMB 0.08 LESS 0.02 0.04 0.06 SUM LESS. 0.05 • 1 • 1 • 3 . 2 .5 0.10 1.8 0.15 1.0 . 2 • 2 0.20 0.25 **SUM** 1.1 1.4 2.5 -900. BY MISSION SEG. DESCNT MINUTES FOR CT/5 V5 MU BY RATE OF CLIMB 0.06 LESS 0.02 0.04 0.08 SUM .9 .4 LESS 1.3 2.6 0.05 2.6 0.10 5.1 1.6 6.8 15.2 21.3 0.15 6.1 0.20 22.2 11.7 33.9 0.25 • 9 . 9 0.30 SUM 46.9 19.8 66.7

TABLE XLV - Continued

	MINUTES	FOR CT/	S VS MU	ВҮ	RATE OF	CLIMB	-900•	вч	MISSION	SEG.	STEADY
	LESS	0.02	0.04	0.06	0.08	SUM					
0.05			• 2			• 2					
0.15			1.0	• 3		1.4					
0.25 SUM			1.2	• 3		1.6					
•	MINUTES	FOR CT/	S VS MU	ВУ	RATE OF	CLIMB	-900•	вч	MISSION	SEG.	SUM
	LESS	0.02	0.04	0.06	0.08	SUM					
LESS			.9 2.7	• 4		1.3					
0.05			5.7	1.8		7.4					ł
0.15			15.9	7.3		23.2					
0.20			23.3	12.2		35.5					
0.25			• 5			• 9					
0.30 SUM			49.3	21.7		71.0					
	MINUTES	FOR CT/	S VS MU	BY	RATE OF	CLIMB	-600•	вч	MISSION	SEG.	ASCENT
	LESS	0.02	0.04	0.06	0.08	SUM					
LESS			1.0	• 2		1.2					
0.05			• 3	•1		• 4					i
0.15			2.2	. 8		3.0					1
0.20			2.8	. 9		3.7					i
0.25			• 3			• 3					
0.30 SUM			6.7	2•2		8.9					
	MINUTES	FOR CT/	S VS MU	ВҮ	RATE OF	CLIMB	-600,	вч	MISSION	SEG.	MANUVR
	LESS	0.02	0.04	0.06	0.08	SUM					
LESS			• 1			• 1					
0.05			• 1	• 6		.7					
0.10			1.4	• 1		1 • 4 2 • 2					
0.20			•6	.4		1.0					
0.25 SUM			4.2	1.2		5.4					1
JUM			706	1.02		J • *					

TABLE XLV - Continued MINUTES FOR CT/S VS MU BY RATE OF CLIMB -600. RY MISSION SEG. DESCNT 0.06 0.02 0.04 LESS 0.08 5UM LESS . 8 1.5 2.4 0.05 4.9 7.9 3.0 0.10 13.6 6.5 20.1 0.15 55.1 13.9 41.2 0.20 53.2 22.2 75.7 0.25 2.0 5.1 7.0 0.30 SUM 115.7 52.2 168.2 -600. BY MISSION SEG. STEADY BY RATE OF CLIMB MINUTES FOR CT/S VS MU 0.06 0.08 SUM 0.04 LESS 0.C2 • 2 1.5 1.3 **LESS** 1.5 1.3 . 2 0.05 1.4 0.10 1.0 .4 14.5 7.5 7.0 0.15 26.6 14.5 11.2 0.20 0.25 1.3 .6 1.9 0.30 47.3 SUM 26.9 19.5 1.0 -600. BY MISSION SEG. SUM MINUTES FOR CT/S VS MU BY RATE OF CLIMB SUM 0.04 0.06 0.08 0.02 LESS 1.9 5.2 3.2 • l LESS. 10.5 0.05 6.6 3.8 23.3 7.2 16.1 0.10 74.8 52.9 21.8 0.15 71.0 34.7 1.3 107.0 0.20 9.1 5.6 0.25 3.5 0.30 1.4 229.8 75.0 153.4 SUM -300. BY MISSION SEG. ASCENT BY RATE OF CLIMB MINUTES FOR CT/S VS MU 0.06 0.08 SUM 0.04 LESS 0.02 10.7 7.1 3.6 LESS 2.9 15.6 12.8 0.05 27.8 15.6 12.1 0.10 108.9 38.9 147.8 0.15 163.3 47.4 0.20 111.5 2.7 2.4 0.25 0.30 4.4 367.9 258.2 105.3 SUM

TABLE XLV - Continued MINUTES FOR CT/S VS MU BY RATE OF CLIMB -300. BY MISSION SEG. MANUVR 0.06 0.08 SUM LESS 0.02 0.04 . 2 **LESS** . 2 2.2 . 8 0.05 1.3 • 1 0.10 5.2 1.3 6.4 5.6 8.0 0.15 2.3 0.20 2.8 1.9 4.6 0.25 SUM 15.1 6.2 • 1 21.4 -300 - BY MISSION SEG. DESCNT MINUTES FOR CT/S VS MU BY RATE OF CLIMB 0.04 0.06 0.08 SIJM LESS 0.02 LESS 5.5 3.5 9.0 0.05 19.5 3.8 23.3 7.4 22.7 30.1 0.10 0.15 66.0 31.0 97.0 170.0 113.9 54.0 2.1 0.20 0.25 13.6 12.2 • 3 26.1 0.30 2.4 355.5 SUM 241.3 111.8 -300. BY MISSION SEG. STEADY MINUTES FOR CT/S VS MU BY RATE OF CLIMB SUM **LESS** 0.02 0.04 0.06 0.08 LF55 45.9 58.6 12.7 33.4 29.3 0.05 4.1 0.10 18.7 17.1 35.8 341.9 330.7 672.6 0.15 21.8 1270.2 0.20 699.8 548.6 18.1 18.6 36.8 0.25 0.30 1153.7 931.9 21.8 2107.4 SUM -300. BY MISSION SEG. SUM MINUTES FOR CT/S VS MU BY RATE OF CLIMB 0.04 0.06 0.08 SUM LESS 0.02 78.5 19.9 LESS 58.6 74.5 0.05 62.9 11.5 100.0 0.10 62.2 37.9 925.4 522.4 0.15 403.0 0.20 928.0 651.9 28.3 1608.2 65.6 0.25 34.2 31.2 • 3

28.7 2852.2

1668.3 1155.2

0.30

SUM

			TA	ABLE	XLV -	Conti	nued				
	MINUTES	FOR CT	/5 V5 MU	BY	RATE OF	CLIMB	300•	ВҮ	MISSION	SEG.	ASCENT
LFSS 0.05 0.10 0.15 0.20	LESS	0.02	0.04 1.6 7.6 15.6 69.7 32.1	0.06 2.2 4.5 13.8 31.4 11.0		SUM 3.7 12.0 29.4 101.1 44.5					
0.30 SUM			126.8	63.1	1.5	191.3					
1	MINUTES	FOR CT.	/S V5 MU	ВҮ	RATE OF	CLIMB	300•	вч	MISSION	SEG.	MANUVR
	LESS	0.02	0.04	0.06	0.08	SUM					
0.05			• 2 • 8	• 3	• 1	•2 1•2					
0.10			• 9	. 8		1.7					
0.15			1.8 .1	•6		2.4					
0.25 SUM			3.8	1.9	•1	5.8					
	MINUTES	FOR CT	/S VS MU	ВҮ	RATE OF	CLIMB	300•	BY	MISSION	SEG.	DESCNT
	LESS	0.02	0.04	0.06	0.08	SUM					
LESS			• 5	• 2		. 7					
0.05			1.3 1.0	•2		1.5 1.3					
0.10			2.5	•6		3.1					
0.20			3.4	1.2		4.6					
0.25			• 3	• 3		• 6					
0.30 SUM			9.0	2.8		11.8					
,	MINUTES	FOR CT	'S V5 MU	ВΥ	RATE OF	CLIMB	300•	вч	MISSION	SEG.	STEADY
	LESS	0.02	0.04	0.06	0.08	SUM					
LESS			• 9	• 1		1.0					
0.05			1.0	• 2 • 8		1.2					ļ
0.10			1.4 7.2	9.6		16.8					ſ
0.20			12.8	15.2	•6	28.6					
0.25			.4	• 4		. 8					j
0.30 SUM			23.8	26.2	•6	50.5					
							-				

			Т.	ABLE	XLV -	Cont	inued				
	MINUTES	FOR CT	/5 V5 MU	ВУ	RATE OF	CLIMB	300•	вч	MISSION	SEG.	SUM
	LESS	0.02	0.04	0.06	0.08	SUM					
LF55			3.2	2.4		5.6					
0.05			10.7	5.1		16.0					
0.10			19.0	15.7		34.6					
0.15			81.2	42.3		123.4					
0.20			48.4 .9	27.5		78.0 1.8					
0.30 SUM			163.4	93.9		259.5					
	MINUTES	FOD CT					400.	Dν	MISSION	SEG	ASCANT
							8004	Dī	MISSION	36.00	ASCENT
1.555	LESS	0.02	0.04	0.06	0.08	SUM					
LESS 0.05			•8 4•7	•5 2•4		1.3 7.0					
0.10			10.2	8.7		18.8					
0.15			24.6	12.4		37.0					
0.20				1.6		12.4					
0.25			• 1	• 1		• 2					
0.30 SUM			51.1	25.6		76.6					
İ	MINUTES	FOR CT	'S VS MU	BY	RATE OF	CLIMB	600•	BY	MISSION	SEG.	MANUVR
LFSS	LESS	0.02	0.04	0.06	0.08	SUM					
0.05			• 2	• 1		• 3					
0.10			.7	.5		1.2					
0.15			• 6	.5		1.1					
0.20			• 3			• 3					
0.25 SUM			1.9	1.0		2.9					
	MINUTES	FOR CT/	'S VS MU	BY	RATE OF	CLIMB	600•	ВУ	"15510N	SFG.	DESCNT
	LESS.	0.02	0.04	0.06	0.08	SUM					
LESS			• 1			• 1					
0.05											
0.10											ĺ
0.15			•	- 2		- /-					· ·
0.20			• 2	• 2		• 4					
SUM			• 3	• 2		• 4					
	MINUTES	FOP CT/	'S VS MU	BY	RATE OF	CLIMB	600+	ВЧ	MISSION	SEG.	STEADY
	LESS	0.02	0.04	0.06	0.08	SUM					
LESS			• 1			- 1					
0.05											
0.10			• 2	• 3		.4					
0.20			.6	• 2		. 9					
0.25 SUM			• 9	• 5		1.4					

TABLE XLV - Continued MINUTES FOR CT/S VS MU BY RATE OF CLIMB 600. BY MISSION SEG. SUM 0.02 0.04 0.06 0.08 SUM LF55 1.0 1.5 .5 0.05 4.9 2.4 7.3 10.9 9.1 20.1 0.10 25.3 13.2 0.15 38.5 2.0 0.20 11.9 13.8 • 2 0.25 • 1 • 1 0.30 54.1 27.3 81.4 SUM BY RATE OF CLIMB 900. BY MISSION SEG. ASCENT MINUTES FOR CT/S VS MU 0.06 0.04 SUM 0.08 LESS 0.02 . 3 • 3 LESS • 6 2.1 .5 2.6 0.05 5.9 3.9 0.10 2.0 5.9 4.2 10.2 0.15 4.4 0.20 3.6 • 8 0.25 0.30 14.4 9.6 24.1 SUM MINUTES FOR CT/S VS MU BY RATE OF CLIMB 900. BY MISSION SEG. MANUVR LESS 0.02 0.04 0.06 0.08 SUM 0.05 • 2 0.10 • 2 0.15 • 5 • 5 0.20 SUM • 6 • 6 BY RATE OF CLIMB 900. BY MISSION SEG. DESCNT MINUTES FOR CT/S VS MU 0.08 LESS 0.02 0.04 0.06 SUM 0.10 0.15 • l • 1 0.20 • 1 • 1 0.25 . 2 SUM . 2 900. BY MISSION SEG. STEADY BY RATE OF CLIMB MINUTES FOR CT/S V5 MU SUM 0.02 0.04 0.06 0.08 LESS. • 1 LESS. • 1

0.05 0.10 0.15

0.20

SUM

• 2

• 2

• 1

• 2

• 3

TABLE XLV - Continued

	MINUTES	FOR C	T/S VS MU	ВУ	RATE OF	CLIMB	900•	ВУ	MISSION	SEG.	SUM
	LESS	0.02		0.06	0.08	SUM					
LESS			• 3	• 3		• 7					
0.05			2.1	• 5		2.6					
0.10			2.2	3.9		6.1					
0.15			6.5	4.2		10.7					
0.25			3.9	• 8		4.6					
0.30			• •			• •					
SUM			15.4	9.7		25.2					
	MINUTFS	FOR C	T/S V5 MU	ВУ	RATE OF	CLIMB	1200+	BY	MISSION	SEG.	ASCENT
	LESS	0.02	0.04	0.06	0.08	SUM					
LESS			• 1	•1		•2					
0.05			• 5	• 1		•6					
0.10			. 8	• 3		1.1					
0.15			1.7	• 7		2.4					
0.20			. 8	• 2		• 9					
SUM			3.8	1.4		5.2					
	MINUTES LESS	FOR C1	7/S V5 MU	BY 0.06	RATE OF	CLIM3 SUM	1200•	ВҰ	MISSION	SFG.	MANUVR
LFSS	FE 33	0.02	0.04		V+110						
0.05			•0	• 1		•1					
0.15			•1			•1					
0.20			• •			• •					
SUM			• 2	• 1		• 3					
	MINUTES	FOR C	T/S VS MU	ВҮ	RATE OF	CLIMB	1200•	вч	MISSION	SEG.	SUM
	LESS	0.02	0.04	0.06	0.08	SUM					
LESS			• 1	• 1		• 2					
0.05			• 5	• 2		• 7					
0.10			. 8	• 3		1.1					
0.15			1.8	• 7		2.5					
0.20			. 8	• 2		• 9					
SUM			4.0	1.4		5.5					

	MINUTES	FOR	CT/	S VS ML	в в	RATE	OF	CLIMB	1500•	BY	MISSION	SEG.	ASCEN
0.05	LESS	0.0	2	0.04	0.06	0.0	8	SUM					
.10				• 3	• 2			.5					
).15).20				•1	•0			• 1					
.25				• 3	•1			• 4					
SUM				• 6	•4			1.0					
	MINUTES	FOR	CT/	S VS MU	Ј ВҮ	RATE	٥۶	CLIMB	1500.	вч	MISSION	SEG.	SU
0.05	LESS	0.0	2	0.04	0.06	0.0	8	SUM					
.10				. 3	• 2			• 5					
0.15				•1 •3	•0			• 1 • 4					
0.25				• >	• •			• •					
SUM				•6	• 4			1.0					
	MINUTES	FOR	CT/	S VS ML	BY	RATE	OF	CLIMB	1800•	ВҮ	MISSION	SEG.	ASCEN
	LESS	0.0	2	0.04	0.06	0.0	8	SUM					
0.05					•1			•1					
0.15					•0			•0					
).20).25					•0			•0					
SUM					• 2			•2					
	MINUTES	FOR	CT / !	5 VS MU	ВУ	RATE	OF	CLIMB	1800•	вч	MISSION	SEG.	SU
	LESS	0.0	2	0.04	0.06	0.0	8	SUM					
0.05					•1			•1					
15					• 0			• 0					
).20).25					• 0			•0					
SUM					• 2			• 2					
	MINUTES	FOR	CT/	S VS ML	В В У	RATE	OF	CLIMB	2100•	BY	MISSION	SEG.	ASCFN
0.10	LESS	0.0	2	0.04	0.06	0.0	8	SUM					
0.15				•1				• 1					
SUM				• 1				• 1					

			T	ABLE	XLV -	Conclu	ded				
0.10 0.15 0.20 SUM		FOR C'		0.06		SUM	2100•	ВY	MISSION	SEG.	SUM
LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM	MINUTES	0.02	0.04 67.9 91.3 121.8 718.0 1095.9	0.06 25.5 23.7 76.9 498.9 737.0 38.0	0.08 .1 .2 31.5	SUM 93.5 115.2 198.7 1216.9 1864.5 79.0	SUM•	вч	MISSION	SEG.	SUM

TABLE XLVI. TIME FOR ENGINE TORQUE VERSUS AIRSPEED BY WEIGHT AND ALTITUDE

										
	MINUTES	FOR TO	RQUE VS	AIRSPEED	BY W	EIGHT	6000,	ВҮ	ALTITUDE	LESS
	LESS	10	20	30	40	50	60	70	SUM	
LES5			1.1						1.1	
40		. 8							. 8	
60		• 2	• 2						.4	
70		. 3	•-						• 3	
75		• • •								
80		.4							.4	
85		• •	•1						•1	
90			.2						.2	
		•	• 4						.1	
95		•1	3	1.4					1.7	
100			• 3						3.4	
105				3.4					4.4	
110				4.4					7.7	
115									12.0	
SUM		1.8	1.8	9.3					12.9	
	MINUTES	FOR TO	RQUE VS	AIRSPEED	BY WE	IGHT	6000•	BY	ALTITUDE	-6000
	LESS	10	20	30	40	50	60	70	SUM	
LES5			• 7	1.0	• 1				1.9	
40		• 3	3.9	• 2	• 2				4.6	
60		. 8	1.6	•6	. 2				3.2	
70			. 4	•2					.6	
75		• 3	. 9	. 4	.7				2.3	
80		. 4	3.9	2.1	-				6.3	
85		•	1.5	2.6					4.0	
90		• 1		1.9					2.0	
95		• •	.7	.4					1.1	
100		•1	1.2	5.2					6.4	
105		• •	102	4.2					4.2	
110			.6	1.5					2.1	
									1.4	
115			•6	• 8						
120			• i	• 5					•6	
125				•••					40.0	
SUM		2.0	16.0	21.6	1.2				40.8	
	MINUTES	FOR TO	RQUE VS	AIRSPEED	BY WE	IGHT	6000•	BY	ALTITUDE	-3000
	LESS	10	20	30	40	50	60	70	SUM	
LESS	. 5	1.2	10.2	9.4	.4				21.7	
40	.4	3.9	2.7	• 9	. 3				8.3	
60	.4	2.2	2.1	1.2					5.9	
70	• 2	1.6	2.2	1.2	• 1				5.4	
75	• 1	4.1	6.4	4.1	• 1				14.8	
80	-	2.7	14.2	5.2	. 2				22.3	
85	.1	1.0	16.5	1.7	. 1				19.5	
90	i	1.6	24.9	9.2	• i				35.8	
95	• •	.8	27.7	18.2	. 1				46.8	
100		• 5	17.1	32.4	2.9				52.9	
105		• 3	4.6	12.7	8.2				25.8	
		• 3	• 5	15.2	8.3				23.9	
110			• 9	17.0	• 4				17.4	
115					• 4				6.2	
120				6.2					0.0	
125 SUM	1.8	20.0	129.1	134.6	21.2				306.7	

TABLE XLVI - Continued

	MINUTES	FOR TO	RQUE VS	AIRSPEE	D BY WE	IGHT	6000•	BY	ALTITUDE	(
	LESS	10	20	30	40	50	60	70	SUM	
ESS			• 1	• 3					• 4	
40		. 4							• 4	
60		• 3	. 5						• 7	
70		• 1	• 2						• 3	
75	• 4	• 6	•7	• 1					1.7	
80	• 1	1.0	1.2	• 1					2.4	
85	• 1	1.5	2.4	• 2					4.2	
90		1.0	8.0	1.9					10.9	
95		1.5	14.6	3.1					19.2	
100			8.3	8.0					16.3	
105			.9	4.3	• 2				5.4	
110				1.0					1.0	
115				• 7					• 7	
120				• 1					• 1	
125				• 0					•0	
SUM	•6	6.4	36.8	19.8	• 2				63.7	
	MINUTES	FOR TO	RQUE VS	AIRSPE	ED BY WE	IGHT	6000•	ВҮ	ALTITUDE	300
	LESS	10	20	30	40	50	60	70	SUM	
85									• 3	
90			• 3						• 5	
95			• 5						.4	
100			.4						• •	
105			1.2						1.2	
SUM			1.2						***	
•	MINUTES	FOR TO	RQUE VS	AIRSPEE	D BY WE	IGHT	6000•	ВҮ	ALTITUDE	SU
	LESS	10	20	30	40	50	60	70	SUM	
ESS	• 5	1.2	12.1	10.8	• 5				25.0	
40	.4	5.5	6.6	1.1	• 5				14.1	
60	. 4	3.5	4.4	1.8	• 2				10.3	
70	• 2	2.0	2.9	1.4	• 1				6.6	
75	• 5	5.0	8.0	4.5	. 9				18.8	
80	-1	4.5	19.3	7.3	• 2				31.4	
85	• 2	2.5	20.4	4.5	. 1				27.7	
90	.1	2.7	33.4	12.9	• 1				49.1	
95		2.4	43.5	21.8	•1				67.8	
100		.6	27.3	47.0	2.9				77.8	
105		• 3	5.5	24.7	8.3				38.8	
110			1.1	22.1	8.3				31.4	
			.6	18.5	.4				19.5	
115			. 1	6.8					6.9	
115 120				• 0					•0	
			185.0	185.3	22.5				425.3	

				TABLE	XLVI	- Con	tinued		
	MINUTES	FOR TO	RQUE VS	AIRSPE	ED BY	VE I GHT	7000•	BY ALTITUDE	LESS
	LESS	10	20	30	40	50	60	70 SUM	
LESS		.5	7.8	5.8	1.0			15.0	
40		1.1	3.6	1.7	.6			7.0	
60		. 5	1.1	•1	.4			2.2	
70		•1	. 5	2.2	.4			3.2	
75		.0	1.4	4.3	.4			6.2	
80		• 1	• 6	3.2	. 8			4.6	
85			• 9	8.6	1.2			10.8	
90			2.7	5.5	21.5			29.7	
95			1.6	6.1	8.6			16.4	
100			• 3	11.7	1.8			13.8	
105			• 1	5.3	1.8			7.2	
110			•2	•5	1.9			2.6	
115				• 1				•1	
120 SUM		2.3	20.8	55.2	40.3			118.6	
	MINUTES	FOR TO	RQUE VS	AIRSPE	ED BY W	IE I GHT	7000+	BY ALTITUDE	-6000
	LESS	10	20	30	40	50	60	70 SUM	
LESS	CESS	.3	10.6	17.9				31.9	
40		2.5	11.7	3.5	1.0	•2		18.8	
60		7	6.7	2.6	.5			10.6	
70		.5	1.5	1.2	.4	• 1		3.6	
75		.2	2.2	1.1	. 3	.0		3.9	
80		.2	3.6	2.9	.7	•0		7.4	
85			2.0	6.8	1.8	• 1		10.6	
90			12.9	21.4	3.8	• 1		38.1	
95		• 2	12.5	39.9	7.9	• 3		60.8	
100			7.8	30.0	2.9	2.4		43.1	
105			4.4	41.5	8.2	• 4		54.5	
110			. 8	22.8	8.0			31.6	
115				16.6	8.8			25.4	
120				• 3	• 9			1.3	
125 SUM		4.6	76.6	208.3	47.8	4.1		341.4	
	MINUTES	FOR TO	RQUE VS	AIRSPE	ED BY W	EIGHT	7000•	BY ALTITUDE	-3000
	LESS	10	20	30	40	50	60	70 SUM	
LESS		3.2	38.0	25.9	2.4	• 3		69.7	
40	1.0	16.0	12.7	6.4	.7	•1		37.0	
60	.6	13.1	10.7	8.5	. 4	•1		33.4	
70	• 2	7.4	5.5	4.7	.4	• 2		18.5	
75	• 3	6.3	15.0	9.1	.4			31.1	
80	.4	5.3	42.4	12.0	3.1			63.4	
85	.4	2.9	44.8	21.5	2.5			72.1	
90	.4	1.8	71.4	34.8	5.1			113.5	
95	•2	.6	118.1	79.0	10.0			208.0	
100		. 8	58.3	82.3	35.6	• 7		177.7	
105		•1	15.9	77.5	41.0	1.7		136.2	
110			5.9	42.2	31.9	2.1		82.0	
115			2.1	20.4	19.6	3.3		45.4	
120				3.0	3.6	• 3		7.0	
125				.1	.0	•0		•2	
SUM	3.5	57.5	440.7	427.6	156.9	8.9		1095.0	

TABLE XLVI - Continued

	MINUTES	FOR TO	RQUE VS	AIDSDEE	D DV ME			OM ALTERIAL	_
				AIRSFEL	U DY WE	IGHT	7000•	BY ALTITUDE	0
	LESS	10	20	30	40	50	60	70 SUM	
LESS.	.4	• 2	9.9	14.1	1.0			25.6	
40	.7	2.8	6.3	2.6	• 1			12.5	
60	• 3	3.1	8.2	4.3	• 3			16.2	
70	. 3	5.1	6.5	4.7	• 9			17.5	
75	•7	3.2	13.3	2.9	• 2			20.3	
80	• 4	2.2	28.7	7.6	•0			39.0	
85	• 1	3.5	49.8	14.2	• 1			67.8	
90	• 0	1.7	45.9	17.3	• 5			65.5	
75	• 3	2.0	53.5	20.3	• 9			76.9	
100		1.8	20.2	26.5	. 8			49.3	
105		1.3	6.6	20.5	2.6			30.9	
110		• 4	2.0	13.4	5.0	3.9		24.6	
115			1.1	18.2	• 7			20.0	
120			• 2	1.7	• 1			2.0	
125			• 1	•0				•1	
SUM	3.2	27.3	252.2	168.2	13.4	3.9		468.2	
11	MINUTES	FOR TO	RQUE VS	AIRSPEE	D BY WE	IGHT	7000•	BY ALTITUDE	3000
	LESS	10	20	30	40	50	60	70 SUM	
LESS									
40			1.1	1.6				2.7	
60			1.4	1.9				3.3	
70			•6	• 7				1.2	
75			. 8	• 7				1.5	
80		• 2	1.1	1.2				2.5	
85		• 6	2.4	• 3				3.3	
90		• 9	3.5	1.2				5.6	
95		1.1	13.1	5.3				19.5	
100		. 4	10.5	13.8				24.7	
105			3.8	8.5				12.3	
110			• 5	30.7				31.2	
115			1.9	14.1				16.0	
120 SUM		3.3	40.6	80.0				123.9	
•	MINUTES							BY ALTITUDE	6000
LESS	LESS	10	20	30	40	50	60	70 SUM	
40				•1				•1	
60			• 1	• 2				•3	
70			• •	• 5				• 5	
75			• 1	• 3				.4	
80			. i	•6				• 7	
85			• i	.4				.5	
90			. 8	.6				1.4	
95			1.5	• •				1.5	
100				• 3				.3	
105			•6	2.7				3.3	
110			•	2.0				2.0	
115				•6				•6	
120				•				• •	
			3.4	8.3				11.7	

TABLE XLVI - Continued

	MINUTES	FOR TO	RQUE VS	AIRSPE	ED BY W	EIGHT	7000•	BY ALTITUDE	SUM
			20	20		E0.	40	70 SUM	
LESS	LESS	4.1	20 66•2			50 • 7	80	142.2	
40		22.4		16.0	2.4	. 3		78.1	
60	9		28.2	17.6	1.7	.2		65.9	
70	.5	13.2	14.5	13.9	2.1	.3		44.5	
75	1.0		32.8	18.3	1.3	•0		63.2	
80	.8	8.0	76.5	27.6	4.7	•0		117.6	
85	.5		100.0		5.7	• 1		165.0	
90	.5		137.2		30.9	• 1		253.9	
95	. 5	3.9	200.3	150.7	27.4	• 3		383.1	
100		3.1	97.1	164.5	41.1	3.1		308.8	
105		1.4	31.4	156.0	53.5	2.1		244.4	
110		.4	9.4	111.6	46.7	6.0		174.0	
115					29.2	3.3		107.6	
120			• 2		4.6			10.2	
125			• 1	• 1	• 0	• 0		.3	
SUM	6.7	95.0	834.3	947.6	258.4	16.9		2158.8	
	MINUTES	FOR TO	RQUE VS	AIRSPE	ED BY WE	IGHT	8000•	BY ALTITUDE	LESS
	LESS	10	20	30	40	50	60	70 SUM	
LESS		• 2	. 9	13.4	2.9			17.4	
40		1.2	2.5	4.0	1.2	• 1		9.0	
60		• 3	1.1	2.6	• 7			4.8	
70		• 3	• 6	• 7	• 1			1.7	
75		• 1		1.0	• 9			2.6	
80		• 1	1.2	1.0	1.5			3.8	
85			• 7	3.3	2.0			6.0 7.6	
90			• 1	3.7	3.8			15.5	
95			• 3	4 • 1 2 • 2	11.1			3.4	
100				1.2	1.3			1.6	
105				• 3	• 3			• 3	
110 115				• ,				• • •	
SUM		2.1	8.2	37.5	25.7	•1		73.7	
	MINUTES	FOR TO	RQUE VS	AIRSPE	ED BY WE			BY ALTITUDE	-600C
	LESS	10	20	30	40	50	60	70 SUM	
LESS		• 1		15.4	8.9	• 3		30.1	
40		3.2	3.2	3.9	4.0	• 1	• 1	14.5	
60		1.6	2.7		1.3			11.8	
70		• 1	2.1	4.8	•6			7.7	
75		• 6	1.4	9.7	2.1			13.9 26.4	
80		• 5	2.8	20.3	2.9				
85	• 1	• 3	4.9	38.4	5.9			49.6 74.8	
90		• 3	5.2	57.3	12.0 22.5			97.4	
95		• 2	5.2	69.5 91.5	33.4			134.6	
100		• 2	9.6	73.7	35.0			111.6	
105			2.8	48.4	17.6			66.3	
110			• 4	13.3	11.4			25.1	
115			.3	1.3	3.4			5.0	
120 125			• ,	•1				• 1	
SUM	•1	7.1	46.5	453.8	160.9	• 3	• 2	668.9	

TABLE XLVI - Continued

						*			
	MINUTES	FOR TO	RQUE VS	AIRSPEE	D BY W	EIGHT	8000•	BY ALTITUDE	-3000
	LESS	10	20	30	40	50	60	70 SUM	
LESS	2233	1.2	6.6	26.3	6.2			40.2	
40	• 1	3.6	1.6	5.9	3.0	• 1		14.2	
60	•	1.9	3.8	7.0	. 9	• •		13.6	
70		i.i	4.6	7.7	1.2			14.6	
75		.7	11.8	11.4	1.4			25.4	
80		i	21.8	13.9	3.7			39.5	
85		. 3	45.7	18.1	2.6			66.7	
90	•6	.7	48.4	52.1	5.6			107.4	
95	•0	i		123.8	21.0			160.2	
100		.2	13.1	129.9	29.9			173.1	
105		• 3	2.8	46.3	30.8			80.2	
110		• 3	2.0	13.9	17.4			31.3	
115				1.1	21.5			22.6	
120				1.1	•l			•1	
					• 1			• 1	
125	_		136 6	457.3	1/6 2			700 0	
5UM	•7	10.1	175.5	45/03	147.2	• 1		788.9	
	MINUTES	FOR TO	RQUE VS	AIRSPEE	D BY WE	IGHT	8000•	BY ALTITUDE	0
	LESS	10	20	30	40	50	60	70 SUM	
LESS	2233	.6	4.9	5.4	1.3	• 3		12.5	
40	.3	2.7	5.6	3.1	1.1	• 3		12.8	
60	.1	2.1	9.1	3.4	1.1			14.7	
70	: i	2.0	9.4	4.3	.5			16.4	
_									
75	•0	2.2	15.2	7.0	1.0			25.4	
80		1.0	25.4	25.0	•0			51.4	
85		• 3	29.0	51.1	• 6			81.1	
90		• 1	30.1	24.1	• 1			54.4	
95		• 2	37.0	38.7	• 7			76.5	
100		• 2	16.7	20.4	• 3			37.6	
105			2.4	7.1	. 6	• 1		10.2	
110			• 3	1.1	•7	• 1		2.1	
115				• 1	• 4			• 5	
120						• 2		• 2	
125									
SUM	• 5	11.5	185.1	190.7	7.4	•6		395.8	
	MINUTES	FOR TO	RQUE VS	AIRSPEE	D BY WE	IGHT	8000•	BY ALTITUDE	3000
						2.1			
	LESS	10	20	30	40	50	60	70 SUM	
75								_	
80				• 2				• 2	
85			• 2	•6				• 8	
90			2.2	1.9				4.1	
95			2.3	8.0				10.3	
100				7.4				7.4	1
105				2.2				2.2	
110								. = .	
SUM			4.7	20.3				25.0	

TABLE XLVI - Continued

	MINUTES	FOR TO	RQUE VS	AIRSPE	ED BY WE	IGHT	8000•	BY A	ALTITUDE	6006
	LESS	10	20	30	40	50	60	70	SUM	
85 90				2.2					2.2	
95				4.7					4.7	
100				10.5					10.5	
105				5.8					5.8	
110				. 9					• 9	
115										
SUM				24.1					24.1	
	MINUTES	FOR TO	RQUE VS	S AIRSPE	ED BY WE	IGHT	8000•	BY /	ALTITUDE	SU
	LESS	10	20	30	40	50	60	70	SUM	
ES5	2200	2.0	17.8	60.5	19.2	.5	• 1		100.2	
40	.4	10.7	12.9	16.9	9.3	. 3	• 1		50.6	
60	• 1	5.9	16.8	19.3	2.9				44.9	
70	• 1	3.5	16.8	17.6	2.5				40.4	
75	•0	3.6	29.1	29.0	5.3				67.1	
80		1.6	51.2	60.3	8.1				121.3	
85	• 1	1.0	80.5	111.5	11.0				204.1	
90	•6	1.1	86.1	141.2	21.5				250.5	
95		.6	60.0	248.8	55.3				364.6 366.6	
100		• 6	39.4	261.8	64.8				211.5	
105		• 3	8.1	136.3	66.8	•1			100.9	
110			•6	64.6	35.6 33.3	• 1			48.2	
115			.4	14.5 1.3	3.5	• 2			5.3	
120 125			• 3	•1	3.0	• •			• 1	
SUM	1.3	30.9	420.0	1183.8	339.2	1.2	•2	1	1976.4	
	MINUTES	FOR TO	RQUE VS	AIRSPE	ED BY WE	IGHT	9000+	BY A	LTITUDE	LESS
	LESS	10	20	30	40	50	60	70	SUM	
E55		• 2	1.0	5.6	2.2	• 3			9.2	
40			1.5	1.2	. 9				3.6	
60			1.7	1.1	1.3				4.2 2.2	
70			• 1	• 7	1.4				3.1	
75			• 6	1.6	.8				9.4	
80		- 1	•5 •0	5.9 6.5	3.0 1.3				8.0	
85 90		• 1		2.5	1.4				4.1	
95			• 2	1.8	1.0				2.8	
100				.7	2.1				2.8	
105				. 5	8.0				8.5	
110				• 3	22.9				23.2	
				•6	6.4				7.0	
115				• 3	• 3				.6	
120										

	MINUTES	FOR TO	RQUE VS	AIRSPE	ED BY WE	IGHT	9000•	ВУ	ALTITUDE	-6000
	LESS	10	20	30	40	50	60	70	SUM	
LESS	2230	• 5	.4	4.1	2.6	.1		. •	7.7	
40		. 3		1.6	1.0	• 1			3.0	
60		• 1	• 1	2.0	. 5				2.8	
70				1.6	1.0	. 5			3.1	
75		• 3	= _	5.0	1.9				7.3	
80		• 5	• 1	10.6	3.4				14.7	
85		• 3	. 7	17.2	3.4				21.6 28.5	
90			2.2	22.9	3.5				12.1	
95			•6 •9	10.6	•8 2•0				13.5	
100			• 1	10.5 3.6	12.3				15.9	
105		• 3	• 3	2.1	17.6				40.2	
115		• 3	.2	2.1	15.3				17.6	
120			•-	• 3	. ,7				• 9	
125				•	•					
SUM		2.3	5.6	94.2	8c. ·	.8			188.9	
	MINUTES	FOR TOP	QUE VS	AIRSPEE	D BY WE	(GH)	9000•	ВУ	A:TITUDE	-3000
	LESS	10	20	30	40	50	60	70	SUM	
_ESS		• 3	2.1	7.3	• 6	• 2			10.4 10.5	
40		1.8	4.8	3.6	•2				8.5	
60		• 3	5.0	2.9 3.7	•5				10.6	
70 75		•1	6.3 8.0	3.9	.1				12.1	
80		• 1	5.9	14.0	• 2				20.1	
85			6.2	29.4	1.3				37.0	
90			10.7	23.5	5.9				40.0	
95			9.8	23.1	3.4				36.3	
100			12.7	48.3	8.3				69.3	
105			3.6	8.2	3.8				15.6	
110				1.8					1.8	
115				•1					• 1	
120 SUM		2.7	75.1	169.7	24.5	•2			272.2	
	MINUTES	FOR TOP	QUE VS	AIRSPEE	D BY WE	GHT	9000+	BY	ALTITUDE	o
	LESS	10	20	30	40	50	60	70	SUM	
ESS			. 4	• 2					•6	
40		• 3		• 1					.4	
60		• 7	_	•1					. 8	
70		. 3	. 2	2 4					. 4 5.5	
75		.4	2.0 7.1	3.4 14.3					21.9	
80 85		. 4	10.4	39.2					49.7	
90			1.1	26.8					27.9	
95			9.8	1.4					11.2	
100			10.7	- •					10.7	
105			1.9						1.9	
110										
SUM		1.6	43.7	85.7					131.1	

TABLE XLVI - Concluded

	MINUTES	FOR TO	RQUE VS	AIRSPE	ED BY WE	IGHT	9000•	BY ALTITUDE	SUM
	LESS	10	20	30	40	50	60	70 SUM	
LESS		1.0	3.9	17.2	5.3	.6		27.9	
40		2.3	6.3	6.6	2.1	• 1		17.4	
60		1.1	6.9	5.1	2.2			16.3	
70		. 4	6.6	5.9	3.0	. 5		16.4	
75		. 5	10.7	14.0	2.8			28.0	
80		• 9	13.6	44.9	6.6			66.0	
85		e 4	17.4	92.4	6.1			116.3	
90			14.2	75.7	10.7			100.6	
95			20.2	37.0	5.2			62.4	
100			24.4	59.5	12.4			96.3 41.8	
105			5.5	12.2	24.1			65.2	
110		• 3	. 3	4.2	60.4			24.7	
115			• 2	2.8	21.7			1.5	
120				•6	• 9			100	
125 SUM		6.9	130.2	378.9	163.6	1.2		680.7	
	MINUTES	FOR TO	DRQUE VS	AIRSPE	ED BY WE	IGHT	SUM •	BY ALTITUDE	SU
	LESS	10	20	30	40	50	60	70 SUM	
LESS	. 9	8.3	100.1	152.0	32.2	1.8	• 1	295.3	
LESS 40	.9 2.5	8.3	100.1	152.0 40.6	32.2 14.3	1.8		295.3 160.2	
40 60	.9 2.5 1.4	8.3 40.9 27.8	100.1 61.2 56.2	152.0 40.6 44.8	32.2 14.3 7.0	1 • 8 • 8 • 2	• 1	295.3 160.2 137.4	
40 60 70	.9 2.5 1.4	8.3 40.9 27.8 19.0	100.1 61.2 56.2 40.7	152.0 40.6 44.8 38.8	32.2 14.3 7.0 7.6	1 • 8 • 8 • 2 • 8	• 1	295.3 160.2 137.4 107.8	
40 60 70 75	.9 2.5 1.4 .8 1.5	8.3 40.9 27.8 19.0 18.8	100.1 61.2 56.2 40.7 80.5	152.0 40.6 44.8 38.8 65.8	32.2 14.3 7.0 7.6 10.4	1 • 8 • 8 • 2 • 8 • 0	• 1	295.3 160.2 137.4 107.8 177.1	
40 60 70 75 80	.9 2.5 1.4 .8 1.5	8.3 40.9 27.8 19.0 18.8 15.0	100.1 61.2 56.2 40.7 80.5 160.6	152.0 40.6 44.8 38.8 65.8 140.1	32.2 14.3 7.0 7.6 10.4 19.6	1 • 8 • 8 • 2 • 8 • 0 • 0	• 1	295.3 160.2 137.4 107.8 177.1 336.2	
40 60 70 75 80 85	.9 2.5 1.4 .8 1.5	8.3 40.9 27.8 19.0 18.8 15.0 11.0	100.1 61.2 56.2 40.7 80.5 160.6 218.3	152.0 40.6 44.8 38.8 65.8 140.1 260.1	32.2 14.3 7.0 7.6 10.4 19.6 22.9	1 • 8 • 9 • 2 • 8 • 0 • 0 • 1	• 1	295.3 160.2 137.4 107.8 177.1 336.2 513.2	
40 60 70 75 80 85 90	.9 2.5 1.4 .8 1.5 .9 .8	8.3 40.9 27.8 19.0 18.8 15.0 11.0 8.2	100.1 61.2 56.2 40.7 80.5 160.6 218.3 270.9	152.0 40.6 44.8 38.8 65.8 140.1 260.1 310.7	32.2 14.3 7.0 7.6 10.4 19.6 22.9 63.1	1.8 .8 .2 .8 .0 .0	• 1	295.3 160.2 137.4 107.8 177.1 336.2 513.2 654.2	
40 60 70 75 80 85 90	.9 2.5 1.4 .8 1.5 .9 .8 1.1	8.3 40.9 27.8 19.0 18.8 15.0 11.0 8.2 6.9	100.1 61.2 56.2 40.7 80.5 160.6 218.3 270.9 323.9	152.0 40.6 44.8 38.8 65.8 140.1 260.1 310.7 458.2	32.2 14.3 7.0 7.6 10.4 19.6 22.9 63.1 88.0	1.8 .8 .2 .8 .0 .0	• 1	295.3 160.2 137.4 107.8 177.1 336.2 513.2 654.2 877.8	
40 60 70 75 80 85 90 95	.9 2.5 1.4 .8 1.5 .9 .8 1.1	8.3 40.9 27.8 19.0 18.8 15.0 11.0 8.2 6.9 4.3	100.1 61.2 56.2 40.7 80.5 160.6 218.3 270.9 323.9 188.2	152.0 40.6 44.8 38.8 65.8 140.1 260.1 310.7 458.2 532.8	32.2 14.3 7.0 7.6 10.4 19.6 22.9 63.1 88.0 121.1	1.8 .8 .2 .8 .0 .0 .1 .1 .3 3.1	• 1	295.3 160.2 137.4 107.8 177.1 336.2 513.2 654.2 877.8 849.5	
40 60 70 75 80 85 90 95 100	.9 2.5 1.4 .8 1.5 .9 .8 1.1	8.3 40.9 27.8 19.0 18.8 15.0 11.0 8.2 6.9 4.3 1.9	100.1 61.2 56.2 40.7 80.5 160.6 218.3 270.9 323.9 188.2 50.5	152.0 40.6 44.8 38.8 65.8 140.1 310.7 458.2 532.8 329.2	32.2 14.3 7.0 7.6 10.4 19.6 22.9 63.1 88.0 121.1 152.8	1.8 .8 .2 .8 .0 .0 .1 .1 .3 3.1 2.2	• 1	295.3 160.2 137.4 107.8 177.1 336.2 513.2 654.2 877.8 849.5 536.6	
40 60 70 75 80 85 90 95 100 105 110	.9 2.5 1.4 .8 1.5 .9 .8 1.1	8.3 40.9 27.8 19.0 18.8 15.0 11.0 8.2 6.9 4.3	100.1 61.2 56.2 40.7 80.5 160.6 218.3 270.9 323.9 188.2 50.5 11.3	152.0 40.6 44.8 38.8 65.8 140.1 260.1 310.7 458.2 532.8 329.2 202.5	32.2 14.3 7.0 7.6 10.4 19.6 22.9 63.1 88.0 121.1 152.8 151.1	1.8 .8 .2 .8 .0 .0 .1 .1 .3 3.1 2.2 6.0	• 1	295.3 160.2 137.4 107.8 177.1 336.2 513.2 654.2 877.8 849.5 536.6 371.5	
40 60 70 75 80 85 90 95 100 105 110	.9 2.5 1.4 .8 1.5 .9 .8	8.3 40.9 27.8 19.0 18.8 15.0 11.0 8.2 6.9 4.3 1.9	100.1 61.2 56.2 40.7 80.5 160.6 218.3 270.9 323.9 188.2 50.5 11.3 6.3	152.0 40.6 44.8 38.8 65.8 140.1 260.1 310.7 458.2 532.8 329.2 202.5 105.9	32.2 14.3 7.0 7.6 10.4 19.6 22.9 63.1 88.0 121.1 152.8 151.1 84.6	1.8 .8 .2 .8 .0 .0 .1 .1 .1 .3 3.1 2.2 6.0 3.3	• 1	295.3 160.2 137.4 107.8 177.1 336.2 513.2 654.2 877.8 849.5 536.6 371.5 200.0	
60 70 75 80 85 90 95 100 105 110	.9 2.5 1.4 .8 1.5 .9 .8 1.1	8.3 40.9 27.8 19.0 18.8 15.0 11.0 8.2 6.9 4.3 1.9	100.1 61.2 56.2 40.7 80.5 160.6 218.3 270.9 323.9 188.2 50.5 11.3	152.0 40.6 44.8 38.8 65.8 140.1 260.1 310.7 458.2 532.8 329.2 202.5	32.2 14.3 7.0 7.6 10.4 19.6 22.9 63.1 88.0 121.1 152.8 151.1	1.8 .8 .2 .8 .0 .0 .1 .1 .3 3.1 2.2 6.0	• 1	295.3 160.2 137.4 107.8 177.1 336.2 513.2 654.2 877.8 849.5 536.6 371.5	

TABLE XLVII. TIME FOR ENGINE TORQUE VERSUS ROTOR SPEED BY MISSION SEGMENT, RATE OF CLIMB, AND OUTSIDE AIR TEMPERATURE

	MINUTES	FOR	TORQUE	V 5	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	-900·	BY	OAT	-8
314	LESS		10	20	30	40	50	60		70	SUM				
324 334						•1					•1				
SUM						•1					•1				
	MINUTES	FOR	TORQUE	vs	RPM BY	MISSION	SEG.	ASCENT.	ВУ	RATE	OF CLIMB	-900•	BY	OAT	(
304	LESS		10	20	30	40	50	60		70	SUM				
314 324				• 1							•1				
SUM				• 1							•1				
	MINUTES	FOR	TORQUE	V\$	RPM BY	MISSION	SEG.	ASCENT.	ВҮ	RATE	OF CLIMB	-900•	ВY	OAT	SUM
304	LESS		10	20	30	40	50	60		70	SUM				
314 324				• 1		•1					• 1 • 1				
334 SUM				• 1		•1					• 2				
	MINUTES	FOR	TORQUE	V5	RPM BY	MISSION	SEG.	ASCENT.	ВУ	RATE	OF CLIMB	-600+	BY	OAT	-80
304	LESS		10	20	30	40	50	60		70	SUM				
314 324 334					•1	•4					•5				
SUM					.4	.4					. 8				
	MINUTES	FOR	TORQUE	vs	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	-600•	BY	OAT	-60
304	LESS		10	20	30	40	50	60		70	SUM				
314 324 33+					• 8 • 5	•1					• 9 • 8				
SUM					1.3	.4					1.7				
	MINUTES	FOR	TORQUE	٧S	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	-600•	ВУ	OAT	-40
304	LESS		10	20	30	40	50	60		70	SUM				
314 324 334					1.2	•2	.4				1.4				
SUM					1.7	•2	.4				2.3				
	MINUTES	FOR	TORQUE	V5	RPM BY	MISSION	SEG.	ASCENT.	вч	RATE	OF CLIMB	-600•	ВУ	OAT	-20
304	LESS		10	20	30	40	50	60		70	SUM				
314				• 5	.7	•1	• 1				1.4				
324 334				_											

											·				
	MINUTES	FOR	TORQ	UE VS					ВY		OF CLIMB	-600,	ВУ	DAT	
294	LESS		10	20	30	40	50	60		70	SUM				
304 314 324			•1	.4	•2 •5 •1	•1					1.0 .5				
334 5UM			• 1	.7	.8	•1					1.7				
	MINUTES	FOR	rong	UE VS	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	-600•	ВУ	OAT	2
304	LESS		10	20	30	40	50	60		70	SUM				
31.				• 1	•2	• 1					•1				
334 SUM				•1	•2	•1					• 3				
	MINUTES	FOR	TORQU	JE VS	RPM BY	MISSION	SEG.	ASCENT.	ву	RATE	OF CLIMB	-600•	Вү	DAT	4
314	LESS		10	20	30	40	50	60		70	SUM				
314 324 334				•1							•1				
SÚM				• 1							•1				
	MINUTES	FOR	TOPOL	JE VS	RPM BY	MISSION	SEG.	ASCENT.	ВУ	RATE	OF CLIMB	-600•	ВУ	OAT	SU
294	LESS		10	20	30	40	50	60		70	SUM				
304 314				. 9	.2 3.3	1.0	•1				•2 5•3				
324			• 1	•6	2.0	. 4	• • • • • • • •				3.4 8.9				
SUM			• 1	1.5	5.4	1.4									
									BY		OF CLIMB	-300•	ВҮ	OAT	-10
314	LESS		10	20	30 1.0	40	50	60		70	SUM 1.0				
324 334 SUM					1.0						1.0				
30,										2475	05 61 140	-300,	B.V.	OAT	-8
						MISSION 40		ASCENT 6			OF CLIMB	-3001	ВҮ	UAI	-0
294 304	LE55		10	20	30 •3	•0	50	90		. •	•3				
314				.5	5.9 5.0	6.5					12.9				
334 5UM				1.1	11.2	14.5					26.8				
	MINUTES	FOR	TOROL	JE VS	RPM BY	MISSION	SEG.	ASCENT.	ВҮ	RATE	OF CLIMB	-300+	BY	OAT	-6
	LESS		10	20	30	40	50	60		70	SUM				
304			,	2.3	25.9	13.6	•1				41.8				
324 334 SUM			• 2 • 2	2.8	18.0	•5 17•8	•1				•5 64•7				

	MINUTES	FOR	TOP	OUF VS	DDM RY	MISSION	SEG.	ASCENT.	AV	DATE	OF CLIMB	-300+	BY	OAT	-40
	LESS		10	20	30	40	50	60	() (70	SUM	-5004	171	UNI	-34
104	L C 33						,,	00		,,					
314 324				2.3 3.0	41.5 6.8	35.1 6.0	4.9				78.9 20.7				
334				. 3	40.7	.0					. 8				
SUM				5.7	48.7	41.1	4.9				100.4				
	MINUTES	FOR	TOR	OUF VS	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	-300•	ВУ	OAT	-20
94	LESS	1	0	20	30	40	50	60		70	SUM				
04						• 1					•1				
114				2.6	31.2	9.0	• 1				42.8				
324				14.4	17.2	1.3	• 1				33.0				
SUM				17.1	49.5	10.4	• 2				77.2				
	MINUTES	FOR	TOR	QUE VS	RPM BY	MISSION	SEG.	ASCENT.	RY	RATE	OF CLIMB	-300+	BY	OAT	
74	LESS	1	0	20	30	40	50	60		70	S UM				
84						•0					•0				
94					• 1	• 0					•1				
304			2	12.0	14.4	. 8					14.3 27.4				
324		1.		14.4	10.8	.2					26.5				
334 5UM		1.	2	26.4	39.6	1.2					68.3				
	MINUTES	FOR	tor	QUE VS	RPM BY	MISSION	SFG.	ASCENT.	BY	RATE	OF CLIMB	-300•	84	OAT	26
	LF55	1	0	20	30	40	50	60		70	SUM				
94															
304				2.3 6.1	15.4	•1					17.8 7.4				
324		•	6	1.5	1.9	• 2					4.1				
334 5UM		•	6	9.9	18.5	• 3					29.3				
	MINUTES	FOR	TOR	OUE VS	£in BY	MISSION	SEG.	ASCENT.	ву	RATE	OF CLIMB	-300•	ВУ	OAT	4(
	LESS		0	20	30	40	50	60		70	SUM				
114		-				· -		Ŧ.:							
324				• 1	• 1						• 3				
MU				• 1	• 1						.3				
	MINUTES	FOR	TOR	DUE VS	RPM BY	MISSION	SEG.	ASCENT.	ВҮ	RATE	OF CLIMB	-300•	ВУ	OAT	SU
	LESS	1	0	20	30	40	50	60		70	SUM				
74						•0					•0				
94					•1	• 0					•1				
304 314			2	2.3	30.0	•2 65•0	• l				32.5 211.1				
124		1.		34.6	60.8	19.4	5.1				121.5				
334 5UM		1.	•	.5 63.1	1.5	85.2	5.2				2.6 367.9				

TABLE	XLVII	-	Continued
	· · · · · · · · · · · · · · · · · · ·		

								BY		OF CLIMB	300•	BY	OAT	-100
314	LESS	10	20	30	40	50	60		70	SUM				
324					•5					•5				
SUM	MINUTES	COD 700	OUE 1/5	00H 0V		556	ACCENT	n v	DATE	OF CLIMB	300	0 V	047	80
	LESS	10	20	30	40	50	60	ы	70	SUM	300•	ВҰ	OAT	-80
30/	CCJJ	.0	.3	1.3	3.9	,,	•			5.6				
324 334			•1	4.6	7.5					12.2				
SUM			• 4	5.9	11.4					17.7				
								BY		OF CLIMB	300•	BY	OAT	-60
294	L 755	10	20	30	40	50	60		70	SUM				
304 314 324			.3	10.1 5.8	14.4					•2 24•5 15•6				
334 5UM			.3	16.1	23.9					40.3				
	MINUTES	FOR TOP			MISSION	SEG.	ASCENT.	ВҮ	RATE	OF CLIMB	300•	ВҮ	OAT	-40
	LESS	10	20	30	40	50	60		70	SUM				
304 314			2.1	21.7	9.2					33.0				
324 334			.6	2.6	2.7	1.1				7.0 .6 40.6				
SUM		F.00 700	2.8	24.9	11.9		ASCENT.	. .	DATE	OF CLIMB	300•	ВУ	OAT	-20
	1.ESS	10	20	30	40	50	60		70	SUM	3.701		OA.	•
294 304	1.6.5.7	• ,		• 1	•2					• 3				
314 324			1.0	23.5	6.7 1.6	• 2	•1			31.4 13.5				
334 5UM			5.3	30.7	8.5	•6	.1			45.1				
-	MINITES	FOR TOR	QUF VS	RPM BY	MISSION	5EG.	ASCENT.	BY	RATE	OF CLIMB	300•	BY	OAT	0
	LESS	10	20	30	40	50	60		70	SUM				
294 304				3.3	•0					3.3				
314 324			5.7 3.1	15.4 8.4	1.3	• 2				22.6				
334 SUM			8.8	27.1	1.5	•2				37.7				
	MINUTES	FOR TOR				SEG.	ASCENT.	BY	RATE	OF CLIMB	300•	ВЧ	OAT	20
	LESS	10	20	30	40	50	60		70	SUM				
294 304			. 5	2 • 1	• 1					2.6				
314			2.9	1.1	• 2					4.2				
324 334			• 5	• 6						1-1				
SUM			3.9	3.9	• 2					8.0				

				TA	ABLE X	LVI	I - C	on	tin	ued				
314 324 334 SUM	LESS	FOP TOR	20 20 •3	30 1.0	MI5510N 40	SEG.		ВУ	RATE 70	OF CLIMB SUM 1.3 1.3	300•	ВУ	OAT	40
294 304 314 324 334 5UM	LESS	FOR TOR	20 20 12.0 9.2 21.7	30 5.7 73.2 30.2 .6 109.6	40 •3 35.8 22.0 58.1	5EG. 50 .4 1.5	60 •1	BY	70	OF CLIMB SUM 6.4 121.3 63.0 .6 191.3	300•	ВY	OAT.	SUM
314 324 334 SUM	MINUTES LESS	FOR TORG	OUE V5	30 •2 •2	MISSION 40	SEG. 50	ASCENT.	ВҮ	RATE 70	OF CLIMB SUM •2 •2	600,	BY	OAT	-100
304 314 324 334 SUM	MINUTES LESS	FOR TORG	20 •1	30 1.6 3.0 4.6	40 2.3 5.7 8.0	5EG. 50	ASCENT, 60	ВУ	RATE 70	OF CL!MR SUM 4.0 8.7 12.7	600.	BY	OAT	-80
304 314 324 334 SUM	MINUTES LESS	FOR TORG	20 .3	30 3.9 1.4 5.4	#15510N 40 8.2 6.3 .3 14.9	5EG. 50	ASCENT •	BY	RATE 70	OF CLIMB SUM 12.5 7.7 .3 20.5	600•	8Y	OAT	-60
304 314 324 334 5UM	MINUTES LESS	FOR TORG	20 •1	30 5.3 .9 6.1	40 4.6 3.0 7.6	5EG. 50 .8 .7			70	OF CLIMB SUM 10.8 4.6	600•	ВУ	OAT	-40
304 314 324 334 SUM	MINUTES LESS	FOR TORQ	20 .4 .3 .7	30 5.9 1.8 .1 7.8	40 2.8 1.0 .3 4.0	50 •1 •3 •4	ASCENT.		70	OF CLIMB SUM 9.1 3.4 .4 12.9	600•	ВУ	OAT	-20

	MINUTES	FOR	TORQU	E VS	RPM BY	MISSION	SEG.	ASCENT .	BY	RATE	OF CLIMB	600+	BY	OAT	0
294	LES5		10	20	30	40	50	60		70	SUM				
304 314 324 334				2.0 1.0	1.0 6.7 2.5	•2					1.0 8.8 3.5				
SUM				3.0	10.2	• 2					13.4				
	MINUTES	FOR	TORQU	E VS	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	600.	BY	OAT	20
294	LESS		10	20	30	40	50	60		70	SUM				
304 314 324			• 1	.3	•4	•2					•3 •8 •4				
334 SUM			• 1	.6	.7	• 2					1.5				
	MINUTES	FOR	TORQUE	E V S	RPM BY	MISSION	SEG.		BY		OF CLIMB	600•	вч	DAT	40
314	LESS		10	20	30	40	50	60		70	SUM				
324 334				• 1							•1				
SUM				• 1							•1				
	MINUTES	FOR	TORQUE	E VS	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	600,	BY	OAT	SUM
294	LES5		10	20	30	40	50	60		70	SUM				
304 314				.3	1.0	18.4	.9				1.3 46.0				
324 334			•1	1.7	10.0	15.9 .6	1.0				28.6				
SUM			•1	4.9	34.9	34.8	1.9				76.6				
	MINUTES	FOR	TORQUE	vs	RPM BY	MISSION	SEG.	ASCENT .	ВҰ	RATE	OF CLIMB	900•	BY	OAT	-100
314	LESS		10	20	30	40	50	60		70	SUM				
314 324 334						•1					•1				
SUM						• 1					•1				
	MINUTES	FOR	TORQUE	V 5	RPM BY	MISSION	SEG.	ASCENT .	BY	RATE	OF CLIMB	900•	ВY	OAT	-80
	LESS		10	20	30	40	50	60		70	SUM				
304 314					•3	. 8 2 . 2					1.1				
324 334					•6	3.0					3.6				
51JM					•0	2.0									

	MINUTES	FOR	TORQU	E VS	RPM BY	M15510N	SEG.	ASCENT.	ВҮ	RATE	OF CLIMB	900•	BY	DAT	- (
	LESS		10	20	30	40	50	60		70	SUM				
304 314					.9	1.5	• l				2.5		•		
124 134					•4	1.6	,				2.0				
SUM					1.2	3.1	•1								
									ВŸ		OF CLIMB	900+	BY	OAT	-
104	LE55		10	50	30	40	50	60		70	SUM				
314					2.3	3.4	• 3				6.0				
334 511M					2.4	3.7	.3				•1 6•4				
31,14															
	MINUTES	FOR	TORQU	F V5	RPM BY	MISSION	SFG.	ASCENT.	BY	RATE	OF CLIMB	900•	BY	OAT	-7
94	LESS		10	20	30	40	50	60		70	SUM				
04				•		• 0					•0				
24				• 2	2.1	• 7					3.0 1.0				
UM				. 2	2.9	• 9					4.0				
	K141115	FOR	TURQUE	v 5	RPM BY	MISSION	SEG.	ASCENT.	вч	RATE	OF CLIMB	900•	ВУ	OAT	
	155		10	20	30	40	50	60		70	SUM				
14					•0						•0				
14				• 3	1.5	. 3					2.0				
124				• 3	1.0										
μį				• 6	2.5	• 3					3.3				
	MINUTES	FOR	TORQUE	VS	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	900•	ВУ	DAT	2
94	LE55	1	.0	20	30	40	50	60		70	SUM				
04						• 1	• 1				•3				
14 24					• 7	•1 1•2					1.7				
34 UM					.7	1.4	• 1				2.2				
	MINUTES	FOR	TURQUE	· v5	RPM BY	MISSION	SEG.	ASCENT.	ВУ	RATE	OF CLIMB	900+	ВУ	OAT	SU
	LESS		n	20	30	40	50	60		70	SUM				
94 04					• 0	•2	• 1				•4				
14				. 5	7.2	6.7	. 4				14.8				
24 34				. 3	3.0 .1	5.5					8.8				
ÚM				. 7	10.3	12.4	•6				24.1				
	MINUTES	FOR	TORQUE	VS	RPM 3Y	MISSION	SFG.	ASCENT.	BY	RATE	OF CLIMB	1200.	BY	DAT	-8
	LESS	1	.0	20	30	40	50	60		70	SUM				
04 14					• 1	•1					• 2				
24 34						.6					•6				

	MINUTES	FOR	TORQU	E VS	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	1200•	ВУ	OAT	-6
	LESS		10	20	30	40	50	60		70	SUM				
304					.4	.4	• 1				• 9				
324 334 5UM					.4	•3 •2 •8	•1				•2 1•3				
JQ!"															
		FOR							ВУ		OF CLIMB	1200•	BY	OAT	-4
304	LESS		10	20	30	40	50	60		70	SUM				
314 324					•0	•2					• 5				
334 SUM					.4	•4					.7				
	MINUTES	FOR	TORQUE	. vs	RPM BY	MISSION	SFG.	ASCENT.	вч	RATE	OF CLIMB	1200•	ВУ	OAT	-2
	LESS		10	20	30	40	50	60		70	SUM				
304 314					• 7	• 3					1.0				
324					•2 •1	• 2					•4				
SUM					1.0	•5					1.5				
	MINUTES	FOR	TORQUE	V 5	RPM BY	MISSION	SEG.	ASCENT.	Вч	RATE	OF CLIMB	1200•	BY	OAT	1
	LESS		10	20	30	40	50	60		70	SUM				
304 314 324				• 2	• 2						.4				
334 5UM				• 2	•6						. 8				
, .										-:					-
	MINUTES	FOR	TOPQUE	E V5				ASCENT.	BY			1200+	ВҮ	DAT	2
294	LESS		10	20	30	40	50	60		70	SUM				
304 314					• 1						• 1				
SUM					• 1						•1				
	MINUTES	FOR	TORQUE	F V5	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	1200•	ВУ	OAT	SUI
294	LESS		10	20	30	40	50	60		70	SUM				
304 314				• 2	•1 1•7	1.0	• 1				•1 3•0				
324				••	. 7	1.2					1.9				
334 SUM				• 2	•1 2•5	2.4	• 1				5.2				
	MINUTES	FOR	TORQU	F VS	RPM BY	MISSION	SEG.	ASCENT.	ВУ	RATE	OF CLIMB	1500•	ВУ	OAT	- A
201	LESS		10	20	30	40	50	60		70	SUM				
304 314						•2					• 2				e
324 334					• 1	• 3					. 4				4

					_										
	MINUTES	FOR	TORQU	F VS	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	1500•	BY	OAT	-60
314	LF5S		10	20	30	40	50	60		70	SUM				
324 334						•2					•2				
SUM						•2					•2				
	MINUTES	FOR	TORQU	E VS	RPM BY	MISSION	SEG.	ASCENT,	ĦY	RATE	OF CLIMB	1500+	ВY	OAT	-40
304	LESS		10	20	30	40	50	60		70	SUM				
314 324						•1					•1				
SUM						• 1					• 1				
	MINUTES	FOR	TORQU	E v5	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	1500.	ВУ	OAT	20
304	LESS		10	20	30	40	50	60		70	SUM				
314 324						• l					•1				
334 5UM						•2					•2				
	MINUTES	FOR	TOROU	FVS	RPM RY	MISSION	SEG.	ASCENT.	RY	RATE	OF CLIMB	1500.	ВУ	OAT	SUM
	LESS		10	20	30	40	50	60	.,,	70	SUM				
304 314						.4					.4				
324 334					•1	•5					•6				
SUM					• 1	•9					1.0				
	MINUTES	FOR	TORQU	E VS	RPM BY	MISSION	SEG.	ASCENT.	BY	RATE	OF CLIMB	1800+	84	OAT	-60
314	LESS		10	20	30	40	50	60		70	SUM				
324 334					•1						• 1				
SUM					•1						• 1				
	MINUTES	FOR	TORQUE	vs.	RPM BY	MISSION	SEG.	ASCENT .	BY	RATE	OF CLIMS	1800.	вч	OAT	-20
304	LESS		10	20	30	40	50	60		70	SUM				
314 324					•1						•1				
SUM					•1						•1				
	MINUTES	FOR	TORQUE	E VS	RPM BY	MISSION	SEG.	ASCENT.	ВЧ	RATE	OF CLIMB	1800+	BY	OAT	SUM
304	LESS		10	20	30	40	50	60		70	SUM				
314					•1						(*1 *1				
334 SUM					•2						• 2				
					• •										

						BLE X	TA 1.								
	MINUTES	FOR	TORQUE	· vs	RPM BY	MISSION	SEG.	ASCENT.	ВУ	RATE	OF CLIMB	2100.	ВУ	OAT	-8
	LESS	1	n	20	30	40	50	60		70	SUM				
304 314						•1					•1				
324 SUM						•1					•1				
30						•					-				
	MINUTES	FOR 1	ORQUE	٧٩	RPM BY	MISSION	SEG.	ASCENT.	81	RATE	OF CLIMB	2100+	ВУ	OAT	SU
304	LESS	10)	20	30	40	50	60		70	SUM				
314 324						• 1					•1				
SUM						•1					•1				
	MINUTES	FOR 1	TORQUE	vs	RPM BY	MISSION	SEG.	MANUVR .	84	RATE	OF CLIMB	LESS.	8Y	OAT	-20
	LESS	10)	20	30	40	50	60		70	SUM				
304 314	. 1										•1				
324 5UM	•1										•1				
									•		05 6 140		a.v	247	
		10		VS 20		M1551UN	5EG •		вт	70	OF CLIMB	LESS.	BY	OAT	
304	LESS	10			30	40	50	60		70					
314 324	.6			• l							•1 •6				
334 5UM	• 1 • 7			. 1							•1				
										0.75	0E CL1MB	,	BY	OAT	20
					30 RPM	40	50	60	ВТ	70	OF CLIMB	LE334	Di	UNI	2.
304	LESS •1	10		20	30	40	,0	•			•1				
314 324 5UM	•1										•1				
JU!!	••														
	MINUTES	FOR T	DRQUE	٧5	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	LESS.	BY	OAT	SUM
04	LESS	10	ā	20	30	40	50	60		70	SUM				
14	•2			. 1							• 2				
34	•6 •1			_							•1				
MU	. 8		•	, 1							• 7				
- 1	MINUTES	FOR T	ORQUE	V5	RPM BY	MISSION	SEG.	MANUVR .	вч	RATE	OF CLIMB	-2100•	вч	OAT	-20
•	LESS	10	1	20	30	40	50	60		70	SUM				
14	•1			. 1							• 2				
124 SUM	•1			. 1							• 2				

				_				-							
	MINUTES	FOR	TORQUE	· vs	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	-2100+	ВУ	OAT	
	LESS		10	20	30	40	50	60		70	SUM				
314 324	•1										•1				
334 SUM	•1										• 1				
	MINUTES	FOR	TORQUE	· vs	RPM BY	MISSION	SEG.	MANUVR .	BY	RATE	OF CLIMB	-2100•	ВΥ	OAT	20
	LESS		10	20	30	40	50	60		70	SUM				
294 304	• 2										• 2				
314 5UM	.?										•2				
	MINUTES	FOP	TORQUE	V 5	RPM BY	MISSION	5EG.	MANUVR,	ВΥ	RATE	OF CLIMB	-2100.	BY	OAT	SUM
	LESS		0	20	30	40	50	60		70	SUM				
294 304	• 2										•2				
314	• 1			• 1							• 2				
334	•1										i				
SUM	. 4			• 1							•5				
									BY		OF CLIMB	-1800.	В	3A+	-40
314	l.ESS	1	0	50	30	40	50	60		70	SUM				
324 334				• 1							•1				
SUM				• 1							.1				
	MINUTES	FOR	TORQUI	F VS	RPM BY	MISSION	SEG.	MANUVR.	ВҮ	RATE	OF CLIMB	-1800.	ВΥ	OAT	o
314	LESS		10	20	30	40	50	60		70	SUM				
324 334			• 1								• 1				
SUM			• 1								•1				
	MINUTES	FOR	TORQUE	V5	RPM BY	MISSION	SEG.	MANUVR.	ВҮ	RATE	OF CLIMB	-1800•	ВУ	OAT	20
304	LESS		0	20	30	40	50	60		70	SUM				
314	• 2										• 2				
324 SUM	• 2										• 2				
	MINUTES	FOR	TORQUE	v 5	RPM BY	MISSION	SFG.	MANUVR.	вч	RATE	OF CLIMB	-1800.	BY	OAT	SUM
201	LESS	1	10	20	30	40	50	60		70	SUM				
304 314 324	• 2		. 1	• 1							• 2				
334 SUM	• 2		. 1	• 1							.3				

	MINUTES	FOR	TORQU	E VS	RPM BY	MISSION	SEG.	MANUVR.	RY	RATE	OF CLIMB	-1500•	ВУ	OAT	-
304	LESS		10	20	30	40	50	60		70	SUM				
114				•1	• 2	• 2					•5				
UM				• 1	• 2	• 2					•5				
	MINUTES	FOR	TORQU	E VS	RPM BY	'15510N	SEG.	MANUVR.	вч	RATE	OF CLIMB	-1500•	ВУ	OAT	-
	LESS		10	20	30	40	50	60		70	SUM				
114	•1			. 1		•1					. 3				
UM	•1			• 1		•1					• 3				
	MINUTES	FOR	TORQU	F V5	RPM BY	MISSION	SEG.	MANUVR,	ВΥ	RATE	OF CLIMB	-1500+	ВΥ	DAT	
	LESS		10	20	30	40	50	60		70	SUM				
14	• 1										• 1				
324	. 1										• 1				
MU	• 1										• 1				
	MINUTES	FOR	TORQUI	E VS	RPM BY	MISSION	SEG.	MANUVR,	ЯΥ	RATE	OF CLIMB	-1500.	BY	OAT	
٠,	LF55		10	20	30	٠٥	50	60		70	SUM				
104	• 1										· i		•		
314 324	• 1										•1				
334 5UM	•2										•2				
	MINUTES	FOR	TORQUE	F VS	RPM BY	MISSION	SEG.	MANUVR.	вч	RATE	OF CLIMB	-1500•	ВY	OAT	S
	LESS		10	20	30	40	50	60		70	SUM				
94	•1										•1				
14	• 2			• 2	• 2	.3					. 8				
34	• 1 • 1										•1				
UM	• 4			• 2	•2	• 3					1.0				
	MINUTES	FOR	TORQU	F VS	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	-1200+	BY	DAT	-
104	LE55		10	20	30	40	50	60		70	SUM				
114				• 1							•1				
IJM				• 1							•1				
	MINUTES	FOR	TORQU	F VS	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	-1200•	ВУ	DAT	-
	LESS		10	20	30	40	50	60		70	SUM				
104				•0	. 4	•0					• 5				
324			• I	• 1							•2				

_				_											
	MINUTES	FOR	TORQUI	F VS	RPM BY	MISSION	SEG.	MANUVR.	ВУ	RATE	OF CLIMB	-1200•	ВҮ	OAT	St
304	LESS		10	20	30	40	50	60		70	SUM				
114			•1	•1 •1	.4	•0					•5				
34 UM			•1	•2	.4	•0					.7				
	MINUTES	FOR	TORQU	E VS	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	-900•	BY	OAT	
	LESS		10	20	30	40	50	60		70	SUM				
14 24				• 1							•1				
34 UM				• 1							•1				
	MINUTES	FOR	TORQUI	E V5	RPM BY	MISSION	SEG.	MANUVR .	ВУ	RATE	OF CLIMB	-900,	ВЧ	OAT	-
	LESS		10	20	30	40	50	60		70	SUM				
04 14 24				•2							•2				
34 IM				.3							.3				
	MINUTES	FOR	TORQUE	. VS	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	-900+	ВУ	OAT	-
	LESS		10	20	30	40	50	60		70	SUM				
4					1.5						1.5				
34				•2							•2 1•7				
JM				• 2	1.5										
	MINUTES	FOR	TORQUE	vs	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	-900•	BY	OAT	-
)4	LESS		10	20	30	40	50	60		70	SUM				
4				• 1							• 1				
34 JM				.4							.4				
	MINUTES	FOR	TORQUE	V5	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	-900•	BY	OAT	
	LESS		10	20	30	40	50	60		70	SUM				
04 14	•1										•1				
24 34 UM	•1										•1				
		FOR	TOROUS	. vs	RPM BY	MISSION	SEG.	MANUVR.	ву	RATE	OF CLIMB	-900+	вч	DAT	S
	LESS		10	20	30	40	50	60		70	SUM				
04	•1		. •	.3	1.5						1.9				
24	.1			•6							•6 •1				

					TA	BLE X	LVI	I - C	on '	tinu	ıed				
	MINUTES LESS		TORQUE	: VS	RPM BY	MISSION 40	SEG.		ВУ	RATE	OF CLIMB	-600•	87	OAT	-80
304 314 324 334 5UM		•	,	, 0	•1 •1	40	,,	00		,,	•1 •1				
		FOR	TORQUE	. vs		MISSION	SEG.	MANUVR.	ВУ	RATE	OF CLIMB	-600•	BY	OAT	-60
304 314 324 5UM		1	o	20	30 •2 •2	40	50	60		70	• 2 • 2				
	MINUTES	FOR	TORQUE	٧S	RPM BY	MISSION	SEG.	MANUVR.	вч	RATE	OF CLIMB	-600•	ВҮ	DAT	-40
304 314 324 334	LESS	1		.8 .2	30 2.8	40	50	60		70	SUM 3.5 .4				
SUM		٠	2 l	•0	2.8						4.0				
	MINUTES	FOR '	TORQUE	٧S	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	-600+	ВУ	DAT	-20
304	LESS	10		20	30	40	50	60		70	SUM				
314 324						•5	•1				•6				
SUM	MINUTES	EOD '	TOBOLIE	ve	DOM BY	•5	•1	MANULVR.	RY	RATE	of CLIMB	-600•	ВУ	OAT	0
	LESS	100		20	30	40	50	60	•	70	SUM				
304 314 324 334				• 2							•2				
SUM				. 4							• 4				
	MINUTES	FOR 1	ORQUE	٧S	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	-600+	BY	OAT	SUM
304	LESS	10) ;	20	30	40	50	60		70	SUM				
314 324 334		• 7		. 9	3•1 •1	•5	•1				4.7				
SUM		• ?	? 1	. 4	3.2	.5	•1				5.4				
	MINUTES	FOP T	ORQUE	V5	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	-3001	BY	OAT	-80
304	LESS	10) 2	90	30	40	50	60		70	SUM				
314 324				. 1	.4						•1				
334 SUM				. 5	.4						1.0				
55															

				TA	BLE X	LVI	I - C	ont	in	ıed				
304 314 324 334 SUM	MINUTES LESS	FOP TORC	20 • 3	30 .3 .2	MISSION 40	5EG. 50	MANUVR.		RATE 70	OF CLIMB SUM .5 .2 .7	-300•	ВУ	OAT	-60
304 314 324 334 SUM	MINUTES LESS	10 .3 .3	20 1.9 .2 2.0	30 10.7 10.7	40 2.2 2.2	5EG • 50 • 3	MANUVR •		RATE 70	OF CLIMB SUM 14.9 .5	-300•	BY	OAT	-40
304 314 324 334 SUM	MINUTES LESS	FOR TORK	20 .4 .4 .8	30 .5	MISSION 40 .9	5EG. 50	MANUVR • 60 • 1 • 1		RATE 70	OF CLIMB SUM 2.3 .4 2.7	-300+	ВУ	OAT	-20
LESS 274 284 294 304 314 324 334	LESS •1	•3	.1 .3	•2	MI5510N 40	SFG.	MANUVR •	ВУ	RATE 70	OF CLIMB SUM .1	-300•	ВУ	OAT	0
294 304 314 324 334 5UM	•1 MINUTES LESS	•3 FOR TORG 10 •2 •2	.4 DUF VS 20 .2 .1	.2 RPM BY 30 .0 .1	MISSION 40	SEG. 50	MANUVR.		RATE 70	1.0 OF CLIMB SUM .0 .3 .3	-300•	Вү	OAT	20
LESS 274 284 294 304 314 324 334 5UM	MINUTES LESS .1	FOR TOR 10 .4 .8 1.2	20 20 2.8 1.4 4.2	30 11.8 .6 12.4	40 3.1 3.1	5EG. 50	•1 •1	ВҮ	RATE 70	OF CLIMB SUM •1 •0 18.4 2.8 21.4	~300•	ВУ	OAT	SUM

					TA	ABLE >	CLVI	I - C	on	tin	ued			-	
	MINUTES	FOP	TORQUE	E VS	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	300•	ВҰ	OAT	-80
314	LESS	1	0	20	30	40	50	60		70	5UM				
324					• 2						• 2				
SUM					• 2						•2				
	MIMUTES	FOR	TORQUE	V 5	RPM BY	MISSION	SEG.	MANUVR.	ВУ	RATE	OF CLIMB	300•	BY	OAT	-60
	LESS	ı	0	20	30	40	50	60		70	SUM				
304 314				.6	• 2						.8				
324 5UM				.6	• 2						.8				
	MINUTES	FOR	TORQUE	. VS	PPM RY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	300•	вч	OAT	-40
	LESS	1	0	20	30	40	50	60		70	SUM				
304 314 324				•1	2•9 •1						2.9				
334 504				. 1	3.0						3.1				
	MINUTES	FOR	TORQUE	vs	RPM BY	MISSION	SEG.	MANUVR.	Вч	RATE	OF CLIMB	300•	ВY	OAT	-20
	LESS	1	0	20	30	40	50	60		70	SUM				
304 314				. 4	• 3	.3					.9				
324 5UM				• 4	• 3	• 3					• 9				
	MINUTES	FOR	TORQU	F VS	RPM BY	MI5510N	SEG.	MANUVR	BY	RATE	OF CLIMB	300+	ВY	OAT	(
LESS			10	20	30	40	50	60		70	SUM •1				
274 284 294 304	•1 •1										•1				
314					• 2						• 2				
324 5UM					•2						• 4				
	MINUTES	FOR	TORQUE	V 5	RPM BY	MISSION	SEG.	MANUVR.	ВУ	RATE	OF CLIMB	300•	BY	DAT	20
	LESS	1	0	20	30	40	50	60		70	SUM				
314 324					• 4						• 4				
334 SUM					.4						.4				
	MINUTES	FOR	TORQU	E VS	RPM BY	MISSION	SEG.	MANUVR .	ВУ	RATE	OF CLIMB	300•	BY	OAT	SU
	LES5		10	20	30	40	50			70	SUM				
LE55 274											•1				
284 294	• 1										•1				
304 3:4				1.0	3.6	•3					4.8				
324 334				• 1	.7						.7				
	• 2			1.1	4.3	• 3					5.8				

	MINUTES	FOR TOR	QUE VS	RPM BY	MISSION	SEG.	MANUVR .	BY R	RATE	OF CLIMB	600+	ВУ	OAT	-80
201	LESS	10	20	30	40	50	60	7	70	SUM				
304 314 324			•1		.3					•1 •3				
334 SUM			•1		.3					.4				
	MINUTE	S FOR TOR	QUE VS	RPM BY	/ MISSIO	I SEG.	MANUVR	BY	RATE	OF CLIMB	600+	ВУ	OAT	-6
304	LESS	10	20	30	40	50	60		70	SUM				
314	•		•1	• 3	•0					• •				
SUN			•1	.3	•0					.4				
	MINUTE	S FOR TOR	QUE VS	RPM BY	r MISSIO	ı SEG.	MANUVR	BY	RATE	OF CLIMB	600,	BY	OAT	-4
304	LESS	10	20	30	40	50	60		70	SUM				
314	•			1.6	• 2					1.8				
SUN	4			1.6	•2					1.8				
	MINUTES	FOR TORG	DUE VS	RPM BY	MISSION	SEG.	MANUVR.	BY R	ATE	OF CLIMB	600•	BY	DAT	-20
304	LESS	10	20	30	40	50	60	7	0	SUM				
314 324					•3					•3				
SUM					•3					• 3				
	MINUTES	FOR TORG	UE VS	RPM BY	MISSION	SEG.	MANUVR.	BY R	ATE	OF CLIMB	600•	ВҮ	OAT	20
								-	0	SUM				
314	LESS	10	20	30	40	50	60	,						
314 324 334	LESS	10	20	30 •1	40	50	60	,		•1				
	LESS	10	20		40	50	60	,						
324 334		10		•1						•1	600•	BY	DAT	SUM
324 334 SUM				•1					ATE	•1	600•	BY	OAT	SUM
324 334 SUM 304 314	MINUTES	FOR TORG	UE VS	.1 .1 RPM BY 30 1.9	MISSION 40 •5	SEG.	MANUVR.	BY R	ATE	.1 .1 OF CLIMB SUM 2.5	600•	BY	OAT	SUM
324 334 SUM 304 314 324 334	MINUTES	FOR TORG	OUE V5	.1 .1 RPM BY	MISSION 40	SEG.	MANUVR.	BY R	ATE	.1 .1 OF CLIMB	600•	BY	OAT	SUM
324 334 SUM 304 314 324 334	MINUTES LESS	FOR TORQ	20 •2	.1 .1 RPM BY 30 1.9 .1	MISSION 40 .5 .3	SEG.	MANUVR •	BY R.	ATE O	.1 .1 OF CLIMB SUM 2.5 .3				
324 334 SUM 304 314 324 334	MINUTES LESS MINUTES	FOR TORQ	20 .2 .2	.1 .1 RPM BY 30 1.9 .1 1.9	MISSION 40 .5 .3 .8 MISSION	SEG. 50	MANUVR 6 60 MANUVR 6	BY R	ATE O	.1 .1 OF CLIMB SUM 2.5 .3 2.9	900.	BY	OAT	
324 334	MINUTES LESS	FOR TORQ	20 •2	.1 .1 RPM BY 30 1.9 .1	MISSION 40 .5 .3	SEG.	MANUVR •	BY R.	ATE O	.1 .1 OF CLIMB SUM 2.5 .3				SUM -40

	MINUTES	FOR	TORQUE	V 5	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	900•	BY	OAT	SU
304	LE55	E	10	20	30	40	50	60		70	SUM				
314					•6	•1					•6				
SUM					•6	•1					.6				
	MINUTES	FOR	TORQUE	F VS	RPM BY	MISSION	SEG.	MANUVR.	BY	RATE	OF CLIMB	1200•	BY	OAT	-6
304	LESS		10	20	30	40	50	60		70	SUM				
314 324						•1					•1				
SUM						•1					•1				
	MINUTES	FOR	TORQUE	. VS	RPM BY	MISSION	SEG.	MANUVR.	BY	RATÉ	OF CLIMB	1200•	BY	OAT	-4
904	LESS		10	20	30	40	50	60		70	SUM				
314						• 1					•1				
SUM						•1					•1				
	MINUTES	FOR	TORQUI	: V5	RPM BY	MISSION	SEG.	MANUVP .	ВҮ	RATE	OF CLIMB	1200•	ВҮ	OAT	-2
304	LESS		10	20	30	40	50	60		70	SUM				
314					•1						•1				
SUM					•1						•1				
	MINUTES	FOR	TORQU	E VS	RPM BY	MISSION	SEG.	MANUVR .	ВҮ	RATE	OF CLIMB	1200•	BY	OAT	SU
304	LESS		10	50	30	40	50	60		70	SUM				
314 324					• 1	•2					•3				
Su ⁴					•1	•2					.3				
	MINUTES	FOR	TORQUE	. vs	RPM BY	MISSION	SEG.	DESCNT.	ВҮ	RATE	OF CLIMB	LESS.	ВУ	DAT	-20
304	LFS5		10	20	30	40	50	60		70	SUM				
314			. 3	• 0							•3				
334 5UM			. 4	•0							•1				
	MINU 'ES	FOP	TORQUE	V5	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	LESS.	BY	OAT	c
314	LESS	1	10	20	30	40	50	60		70	SUM				
324			1								•1				
SUM			1								•1				

TABLE XLVII - Continued

	·			Т	ABLE	XLV	II -	Со	nti	nued	· · · · · · · · · · · · · · · · · · ·			
	MINUTES	FOR TORQ	UE VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	LESS.	BY	OAT	SUM
204	LESS	10	20	30	40	50	60		70	SUM				
304 314 324 334		•3	•0							•3				
SUM		•5	•0							•5				
	MINUTES	FOR TORQ	UE VS		MISSION			BY		OF CLIMB	-2100•	BY	OAT	-60
304	LESS	10	20	30	40	50	60		70	SUM				
314 324			. 3							•3				
SUM			• 3							•3				
	MINUTES	FOR TORQ	UE VS	RPM BY	MISSION	SEG.	DESCNT.	ВУ	RATE	OF CLIMB	-2100•	84	OAT	-40
304	LESS	10	20	30	40	50	60		70	SUM				
314 324		. 3	• 1	•1						• 4				
SUM		• 3	• 1	•1						• 4				
	MINUTES	FOR TORQ	UE VS	RPM BY	MISSION	SEG.	DESCNT.	Вү	RATE	OF CLIMB	-2100+	ВΥ	OAT	-20
304	LESS	10	20	30	40	50	60		70	SUM				
314 324		• 2								• 2				
SUM		• 2								•2				
	MINUTES	FOR TORQU	JF VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	-2100•	ВУ	OAT	SUM
304	LESS	10	20	30	40	50	60		70	SUM				
314 324		.4	. 3	•1						• 9				
SUM		• 4	• 3	•1						• 9				
	MINUTES	FOR TOROL	JE VS	RPM BY	MISSION	SEG.	DESCNT.	ВУ	RATE	OF CLIMB	-1800.	ВУ	OAT	-80
314	LF55	10	20	30	40	50	60		70	SUM				
324 334			• 3							• 3				
SUM			• 3							• 3				
	MINUTES	FOR TORQU	JE VS	RPM BY	MISSION	SEG.	DESCNT.	ВΥ	RATE	OF CLIMB	-1800+	BY	DAT	-60
304	LESS	10	20	30	40	50	60		70	SUM				
314 324		• 3	• 2	•1						• 3				
334 5UM		. 3	. 2	•1						•5				

				TA	ABLE)	(LVI	I - C	O 13	tin	ued	<u> </u>			
	MINUTES LESS	FOR TOR	QUE VS	RPM BY	MISSION 40	SEG.		ВҮ	RATE 70	OF CLIMB	-1800.	вч	OAT	-40
304 314 324			•5	•2						• 7				
334 SUM			•6	•2						.8				
	MINUTES	FOR TORK	QUE VS	RPM BY	MISSION	SEG.	DESCNT.	ВҮ	RATE	OF CLIMB	-1800+	ВУ	OAT	-20
304	LFSS	10	20	30	40	50	60		70	SUM				
314 324		•1	•1	•1						• 4				
334 SUM		.7	•2	•1						1.0				
	MINUTES	FOR TOR	DUE VS	RPM BY	MISSION	SEG.	DESCNT.	ВУ	RATE	OF CLIMB	-1800,	ВУ	OAT	0
304	LESS	10	20	30	40	50	60		70	SUM				
314 324		• 1 • 5								•1 •5				
334 SUM		.6								.6				
	MINUTES	FOR TORG	UE VS	RPM BY	MISSION	SEG.	DESCNT.	ВУ	RATE	OF CLIMB	-1800.	ВУ	DAT	20
	LESS	10	20	30	40	50	60		70	SUM				
314 324 334	•1									•1				
SUM	•1									•1				
	MINUTES	FOR TORG	OUE VS	RPM BY	MISSION	SEG.	DESCNT.	вч	RATE	OF CLIMB	-1800.	вч	OAT	SUM
304	LESS	10	20	30	40	50	60		70	SUM				
314 324	•1	•3 1•3	• B	•4						1.5				
334 SUM	-1	1.6	1.2	.4						3.3				!
	MINUTES	FOR TORG	DUE VS	RPM BY	MISSION	SEG.	DESCNT.	ву	RATE	OF CLIMB	-1500.	ВҮ	OAT	-80
304	LESS	10	20	30	40	50	60		70	SUM				
304 314 324		•1	• 2	•2						.4				
334 51)M		• 3	. 8	• 2						1.2				
	MINUTES	FOR TORG	DUE VS	RPM BY	MISSION	SEG.	DESCNT.	ву	RATE	OF CLIMB	-1500.	ВУ	OAT	-60
304	LESS	10	20	30	40	50	60		70	SUM				
314 324		.7	•4	•6						1.0				
334 5UM		• 7	.5	•6						1.9				

				T	ABLE)	KLV1	II - C	Cor	ntin	ued				
304	LESS	FOR TOR	RQUE VS 20	RPM BY	MI55ION 40	SEG.		ВУ	RATE 70	OF CLIMB	-1500•	BY	OAT	-40
314 324 334	•	• 2	1.6	.6	•1					2.5 .1				
SUM		⋄2	1.6	.7	•1					2.6				
	MINUTES	FOR TOR	CUF VS	RPM BY	MISSION	SEG.	DESCRT.	BY	RATE	OF CLIMB	-1500•	BY	OAT	-20
304	LESS	10	20	30	40	50	60		70	SUM				
314		•3	.3							•6				
334 SUM		.5	.7							1.1				
	MINUTES	FOR TOR	QUE VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	-1500,	BY	DAT	0
304	LESS	10	20	30	40	50	60		70	SUM				
314	•1	•2 1•0	•6							1.3				i
334 SUM	•1	1.2	. 8							2.1				
	MINUTES	FOR TOR	DUF VS	PPM RY	MISSION	SEG.	DESCRIT.	AV	DATE	OF CLIMB	-1500-	BY	OAT	20
	LESS	10	20	30	40	50	60	٠,	70	SUM	-13001	01	UAI	20
314 324	•1									•1				
334 SUM	•1									•1				
	MINUTES	FOR TOR	QUE VS	RPM BY	MISSION	SEG.	DESCNT.	ВУ	RATE	OF CLIMB	-1500.	ВУ	OAT	SUM
304	LESS	10	20	30	40	50	60		70	SUM				
314 324	•2	.7 2.2	3.2 1.2	1.4	•1					5.4 3.6				
334 SUM	•2	2.9	4.4	1.5	•1					9.0				
	MINUTES	FOR TOR	QUE VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	-1200-	RΥ	OAT	-80
	LESS	10	20	30	40	50	60		70	SUM		٥,		-80
304 314 324		•1	.5 2.0	.4						1.0				
334 SUM		•1	2.4	1.3						3.8				
	MINUTES	FOR TOR	QUE VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	-1200.	ВУ	OAT	-60
304	LES5	10	20	30	40	50	60		70	SUM		_,		-00
314 324		•5 1•0	.8	1.2	•1					2.6				
334 SUM		1.6	1.6	1.2	•1					4.5				

			——————————————————————————————————————	TAE	LE XL	VII	- Co	nt	inu	ed				
	MINUTES	FOR TOR	QUE VS	RPM BY	MISSION	SEG.	DESCNT	В	RATE	OF CLIMB	-1200,	ву	OAT	-40
304	LESS	10	20	30	40	50	60		70	SUM				
314 324 334		• 5 • 6	1.7	2.4 .1	•0					4.5 1.6				
SUM		1.1	2.5	2.5	•0					6.1				
	MINUTES	FOR TOR	QUE VS	RPM BY	MISSION	SEG.	DESCNT.	ВУ	RATE	OF CLIMB	-1200,	вч	OAT	-20
304	LESS	10	20	30	40	50	60		70	SUM				
314 324 334		1.0	1.6	•4						2.9 2.1				
SUM		1.8	2.6	. 5						5.0				
	MINUTES	FOR TOR	QUE VS	RPM BY	MISSION	SEG.	DESCNT.	87	RATE	OF CLIMB	-1200.	вч	OAT	0
294	LESS	10	20	30	40	50	60		70	SUM				
304 314 324		1.1	•5 •1 •4							.5 1.2 2.8				
334 5UM		3.5	1.0							4.5				
	MINUTES	FOR TOR	QUE VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	-1200+	BY	OAT	20
	LESS	10	20	30	40	50	60		70	SUM				
304 314 324	•3	• 1	•2							•1				
334 5UM	.3	•1	• 2							•6				
,	•	••	•-							• ,				
	MINUTES	FOR TOR	QUF VS	RPM BY	MISSION	SEG.	DESCNT.	81	RATE	OF CLIMB	-1200•	BY	OAT	40
314	LESS	10	20	30	40	50	60		70	SUM				
324 334		• 2								• 2				
SUM		• 2								•2				
	MINUTES	FOR TOR	QUE VS	RPM BY	MISSION	SEG.	DESCNT.	ВУ	RATE	OF CLIMB	-1200.	BY	DAT	SUM
294	LESS	10	20	30	40	50	60		70	SUM				
304 314		3.1	4.7	4.3	•1					•5 12•3				
324 334	• 3	5.5	5.2	1.1	• 1					12.0				
SUM	• 3	8.6	10.3	5.4	•1					24.8				
i I	MINUTES	FOR TOR	DUE VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	-900•	ВУ	OAT	-80
	LESS	10	20	30	40	50	60		70	SUM				
304		• 4	. 7	3.1						4.2				
324		•1	3.2	3.3						6.5				
SUM		• 5	3.9	6.4						10.8				

				TA	BLE X	LVI	I - C	on'	tinu	ıed				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	ВУ	RATE	OF CLIMB	-900•	ВУ	ÖAT	-60
304	LESS	10	20	30	40	50	60		70	SUM				
314 324 334		.9 1.3	2.3 3.6	7.1 .3	• 9					11.1 5.2				
SUM		2.2	5.9	7.3	• 9					16.3				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	ВУ	RATE	OF CLIMB	-900•	BY	OAT	-40
304	LESS	10	20	30	40	50	60		70	SUM				
314 324 334		•2	6.4	6.8	•5 •1					13.6 1.8				
SUM		• 2	7.4	7.2	•6					15.4				
	MINUTES	FOR TOP	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	ву	RATE	OF CLIMB	-900•	ВҮ	OAT	-20
304	LFSS	10	20	30	40	50	60		70	SUM				
314 324 334		1.7	3.4 2.3	1.9	• 4	•1				6.0 4.2				
SUM		2.1	5.7	2.0	•4	•1				10.2				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	64	RATE	OF CLIMB	-900•	BY	OAT	0
294	L855	10	20	30	40	50	60		70	SUM				
304			.4	_						.4				
314 324	. 3	2.1 3.7	3.3 1.2	• 9						6.3 5.3				
334 5UM	. 3	5.8	4.9	1.0						12.0				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT+	вч	RATE	OF CLIMB	-900•	BY	OAT	20
304	LESS	10	20	30	40	50	60		70	SUM				
314 324 334	.4	.8	•1	•1						•2 1•5				
SUM	• 4	. 8	• 4	• 1						1.7				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	ВУ	RATE	OF CLIMB	-900•	BY	OAT	40
314	LESS	10	20	30	40	50	60		70	5 U 4				
324 334		• 2								•2				
SUM		• 2								•2				
	MINUTES	FOR TO	RQUF VS	RPM BY	MISSION	SEG.	DESCNT.	В1	RATE	OF CLIMB	-900•	ВУ	OAT	SUM
294	LF5S	10	20	30	40	50	60		70	SUM				
304		3.7	16.2	19.9	1.7					.4 41.5				
324 334	• 7	A.1	11.7	4.1	i	• 1				24.8				
c, jM	. 7	11.8	28.2	24.1	1.8	• 1				66.7				

		<u>.</u>		T	ABLE	XLV	II -	Со	nti	nued		-		
	MINUTES	FOR T	ORDUE VS	RPM RY	MISSION	SEGA	DESCNI.	RY	RATE	OF CLIMB	-600-	ВУ	OAT	-100
	LESS	10		30	40	50	60		70	SUM	0001	-0.4	OA 1	-100
314	LLJ	•				,0	00		, 0					
334			•1	•7	1.1					1.9				
SUM			•1	•7	1.1					1.9				
	MINUTES	FOR 1	TORQUE VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	-600+	ВУ	OAT	-80
	LESS	10	20	•	40	50	60		70	SUM				
304 314		1.7	7 2.2	7.	.8					12.4				
324		• 3	2.9	12.6	• 7					16.5				
SUM		1.9	5.1	20.4	1.4					28.9				
	MINUTES	FOR 1	TORQUE VS	RPM BY	MISSION	SEG.	DESCNT.	ВУ	RATE	OF CLIMB	-600•	ВҮ	DAT	-60
	LESS	10	20	30	40	50	60		70	SUM				
304 314		.4		12.2	1.9					21.2				
324 334		• 4	4 4.2	• 9	•2					5.7				
SUM		• 9	9 10.9	13.1	2.0					27.0				
	MINUTES	FOR T	ORQUE VS	RPM BY	MISSION	SEG.	DESCNT .	ву	RATE	OF CLIMB	-600+	ВҮ	OAT	-40
304	LE55	10	20	30	40	50	60		70	SUM				
314 324		1.2		16.8 1.2	• 9	• 1				26.0				
334 \$UM		2.3	8.8	18.0	1.2	•1				30.3				
	MINUTES	FOR T	ORQUE VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	-600•	BY	OAT	-20
294	LE55	10	20	30	40	50	60		70	SUM				
304 314		1.9	6.2	1.6	•5					1.6				
324		4.0	-	1.1	1.0					20.1 16.2				
334 5UM		5.9	16.3	14.1	1.5					37.9				
								21.						
		FOR T	URQUE VS	RPM BY	MISSION	SEG.	DESCNT.	ВҮ	RATE	OF CLIMB	-600•	ВУ	OAT	0
294	LESS	10	20	30	40	50	60		70	SUM				
304 314		6.8	.9 10.1	4.1						5.1 18.6				
324 334	• 2	5.5		• 2						10.0				
SUM	• 2	12.4	15.1	6.0						33.7				

	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	-600,	BY	OAT	
	LESS	10	20	30	40	50	60		70	SUM				
94			2.0	1.3						3.3				
14	•2	.7 2.0	. 4	•2						1.1				
34														
UM	•2	2.6	3.3	1.5						7.7				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	вч	RATE	OF CLIMB	-600+	BY	OAT	
• 4	LESS	10	20	30	40	50	60		70	SUM				
14			•2	•6						.8				
34 UM			•2	•6						.8				
	MINUTES	FOR TO	ROUF VS	RPM RY	MISSION	SFG.	DESCRI.	RY	RATE	OF CLIMB	-600•	ВУ	OAT	s
	LESS	10	20	30	40	50	60		70		-0001	0,	UA.	,
4	LESS	10	_		40	90	80		70	SUM				
4		12.7	2.9 32.7	7.0 49.9	4.0	-1				9.9				
4	•4	13.3	24.3	17.6	3.2					58.8				
M	•4	26.0	59.9	74.5	7.2	• 1			1	68.2				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT .	ву	RATE	OF CLIMB	-300+	BY	DAT	-1
	LESS	10	20	30	40	50	60		70	SUM				
14 24			•1	•2	.9					1.2				
34 UM			•1	•2	• 9					1.2				
Gi-			••	• •	• 7					1.02				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	ВУ	RATE	OF CLIMB	-300•	BY	OAT	-
4	LE55	10	20	30	40	50	60		70	SUM				
4		.5	4.8	12.4	•1 2•9					•1 20•7				
24		• 1	2.0	18.9	4.3					25.3				
JM		•6	6.8	31.3	7.3					46.0				
	MINUTES	FOR TOP	ROUE VS	RPM BY	MISSION	SEG.	DESCNT.	RY	RATE	OF CLIMB	~300.	BV	OAT	_
	LESS	10	20	30	40	50	60		70	SUM	3001		V A1	_
4		• ••	10.6			,,	80		, ,					
4		1.0	3.8	33.9 2.5	t 4					50.9 7.3				
4		1.0	14.4	36.4	6.4					58.2				
			·											

				T	ABLE	XLV:	II - (Cor	ntin	ued				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	-300•	BY	OAT	-4(
304	LESS	10	20	30	40	50	60		70	SUM				
314 324 334		1.9	3.0 1.9	34.7 1.9	11.7 14.9	.4				49.4 21.0				
SUM		2.0	4.9	36.6	26.6	.4				70.4				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	ВY	RATE	OF CLIMB	-300•	ВУ	OAT	-20
· 294 304	LESS	10	20	30	40	50	60		70	SUM				
314		2.7	12.8	2.5 13.5	7.0					2.6 35.9				
324		5.6	21.7	2.5	• 2					29.9				
334 SUM		8.2	35.0	18.8	7.3					69.3				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	вч	RATE	OF CLIMB	-300•	BY	DAT	0
294	LESS	10	20	30	40	50	60		70	SUM				
304			1.9	22.3						24.2				
314	-	2.5	12.6	11.3	• 2					26.5				
324 334	• 3	5.4	24.7	6.0						36.4				
SUM	• 3	7.9	39.2	39.6	•2					87.1				
	MINUTE5	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	вч	RATE	OF CLIMB	-300+	вч	DAT	20
294	LESS	10	20	30	40	50	60		70	SUM				
304			• 3	9.7						10.0				
314 324		1.7	2•2 5•0	1.4						2.7 8.1				
334		1.4	5.0	1.4						.4				
SUM		2.6	7.5	11.1						21.2				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	-300+	BY	OAT	40
314	LESS	10	20	30	40	50	60		70	SUM				
324 334			.7	1.4						2.1				
SUM			.7	1.4						2.1				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	BY	RATE	OF CLIMB	-300•	BY	OAT	SUM
294	LE5S	10	50	30		50	60		70	SUM				
304			2.2	34.5	• 2					36.9				
314	2	6.2 15.6	46.0 59.8	105.8	28.1 20.3					86.1 31.2				
334	. 3	17.6	.5	34.8	20.3	.4				1.3				
SUM	.3	22.3	108.5	175.5	48.6	.4			3	155.5				
	MINUTES	FOR TOP	RQUE VS	RPM BY	MISSION	SEG.	DESCNT.	вч	RATE	OF CLIMB	300•	BY	DAT	-100
314	LESS	10	20	30	40	50	60		70	SUM				
324 334				•1						• 1				
SUM				• 1						•1				

				TA	BLE X	LVI	I - C	on	tinu	ued				
304 314 324 334 5UM	MINUTES LESS	FOR TO	RQUF VS	30 .3 .9	MISSION 40 .1 .3	SEG. 50	DESCNT.	ВΥ	RATE 70	OF CLIMB SUM .3 1.2	300.	ВΥ	OAT	-80
304 314 324 SUM	MINUTES LESS	FOR TOP 10 11	20 •1			SEG. 50	DESCNT 6	ВУ	RATE 70	OF CL)MB SUM 1.3	300.	ВҰ	OAT	-60
294 304 314 324 334 5UM	MINUTES LESS	FOR TO	20 •1 •5	30 1.5 .0 1.5	40 •3 •4 •2 •9	56. 50 •1	DESCNT •	ву	RATE 70	OF CLIMB SUM .3 2.0 .8 3.1	300•	ВУ	DAT	· -4 0
294 304 314 324 334 5UM	MINUTES LESS	FOR TO:	20 .6 .5	30 .2 1.2 .3	#ISSION 40 .1 .1 .2	5EG. 50 •1	DESCNT •	BY	RATE 70	OF CLIMB SUM .2 2.0 1.0 3.2	300•	ВУ	OAT	-20
294 304 314 324 334 5UM	MINUTFS LESS	10 10	20 •2 •9 •2	30 .6 .3	#ISSION 40 •1 •1	SEG. 50	DESCNT.	ВҮ	RATE 70	OF CLIMB SUM .8 1.2 .3 2.2	300•	BY	OAT	Ć
294 304 314 324 334 5UM	MINUTES LESS	FOR TO	20 •2 •2	30 •1 •1	MISSION 40	SEG. 50	DESCNT•	ВУ	RATE 70	OF CLIMB SUM 1 1 2	300+	ВҰ	OAT	20
294 304 314 324 334 5UM	MINUTES LESS	10 10 •1 •2	20 •2 1•7 1•3	30 1.0 4.4 1.3 6.7	MISSION 40 .3 .6 .6	5EG. 50 •1 •1	DESCNT.	ВҮ	RATE 70	OF CLIMB SUM 1.4 6.9 3.5	300+	ВҮ	OAT	SUN

				T	ABLE :	XLV	II - (Cont	inued				
314 324 334 SUM	MINUTES LESS	FOR TOR	QUE VS 20	30 •1	MISSION 40	SEG. 50	DESCNT •	BY RA	TE OF CLIMB SUM •1 •1	600•	ВҰ	OAT	-80
304 314 324 SUM	MINUTES LESS	FOR TOR	QUE VS	30 •2 •2	MISSION 40	5EG. 50	DESCNT.	BY RA	SUM •2 •2	600.	BY	DAT	-60
304 314 324 SUM	MINUTES LESS	FOR TOR	QUE VS 20	30 •2 •2	MISSION 40	5EG.	DESCNT.	BY RA'	SUM •2 •2	600•	ВΥ	OAT	-40
304 314 324 334 5UM	MINUTES LESS	FOR TOR	QUE VS 20	30 .4 .1	MI5510N 40	5EG. 50	DESCNT.	BY RA	SUM .4 .1	600•	ВУ	OAT	SUM
304 314 324 5UM	MINUTES LFSS	FOR TOR	QUF VS 20	30 •1 •1	MI5SION 40	5EG. 50	DESCNT •	BY RA	SUM 1 1	900•	BY	OAT	-40
304 314 324 SUM	MINUTES LESS	FOR TOR	QUE VS 20	RPM BY	MISSION 40 •1 •1	SEG. 50	DESCNT.	BY RA'	SUM 1 1	900•	BY	OAT	-20
304 314 324 5UM	MINUTES LESS	FOR TOR	QUE VS 20	30 •1 •1	MISSION 40 •1 •1	5EG. 50	DESCNT •	BY RA	SUM •2 •2	900•	ВҮ	OAT	SUM

	·			•	TABLE	XLV	/II -	Co	nti	nued				
	MINUTES	FOR TOP	RQUE VS	RPM BY	MI5510N 40	SEG.	STEADY.	ВҮ	RATE	OF CLIMB	-900•	ВУ	DAT	-80
304 314 324 5UM				.4						.4				
	LESS	FOR TO	RQUE VS	RPM BY	M15510N 40	5EG• 50	STEADY+	ВУ	RATE 70	OF CLIMB	-900•	ВУ	OAT	-60
314 324 334 5UM			• 2							•2				
	MINUTES LESS	FOR TOR	QUE V5	Hr 4 BY	MISSION 40	SEG.	STEADY.	ВУ	RATE	OF CLIMB	-900•	ВУ	OAT	-40
304 314 324 SUM	LE 33	10	. 20	•5	40	,,	90		••	•5				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	-900•	BY	DAT	-2
304 314 324 5UM	LESS	10	20 •2 •2	30	40	50	60		70	•2 •2				
	MINUTES	FOR TOP	QUE VS	RPM BY	MISSION	SEG.	STEADY.	ВУ	RATE	OF CLIMB	-900•	Вч	OAT	d
314 324 334 SUM	LESS	10	20	•1 •1	40	50	60		70	•1 •1				
	MINUTES	FOR TOP	RQUE VS	RPM BY	MISSION	SEG.	STEADY.	ВΥ	RATE	OF CLIMB	-900•	BY	OAT	20
314 324 334 SUM	LESS	10	20	•1 •1	40	50	60		70	•1 •1				
	MINUTES	FOR TOP	RQUE VS	RPM BY	MISSION	SEG.	STEADY.	ВҮ	RATE	OF CLIMB	-900.	BY	OAT	SUM
304 314	LESS	10	20 •2	30 1.0	40	50	60		70	SUM 1.1				
324			•2	• 2						.4				

_								II - C					-		
	MINUTES	FOR	ropo	UF VS	RPM RY	MISSION	SEG.	STEADY.	ВУ	RATE	OF CLIMB	-600•	BY	OAT	-
304	LFSS	1	0	20	30	40	50	60		70	SUM				
114 174 134				•6	1.9	2.2					4.6				
UM				• 6	2.3	2.4					5.3				
	MINUTES	FOR	TORQ	UE VS	RPM BY	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	-600•	ВУ	OAT	
04	LESS	1	0	20	30	40	50	60		70	SUM				
14				• 3	1.9	1.2					3.4 2.7				
34 UM				.9	•2 3•9	1.6					6.3				
	MINUTES	FOR	TORQ	UE VS	RPM BY	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	-600•	ВУ	OAT	
04	LESS	1	0	20	30	40	50	60		70	SUM				
14				.1	10.6	2.6					13.2				
34 UM				.1	11.3	2.7					14.1				
	MINUTES	FOR	TORO	UE VS	RPM BY	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	-600,	RY	OAT	
04	LESS	1	0	20	30	40	50	60		70	SUM				
114			ı	1.4	5.5	• 2					7.1 4.6				
34 UM		•	1	3.8	•3 7•7	.5					12.0				
	MINUTES	FOR	1 ORQU	JE VS	RPM BY	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	-606•	ВУ	OAT	
94	LE55	1	0	20	30	40	50	6 0		70	SUM				
04 14 24		•	3	3.5 1.0	• 9	.4					.9 4.7 1.0				
34 UM		•	3	4.5	1.5	.4					6.6				
	MINUTES	FOR	TORO	UF VS	RPM BY	MISSION	SFG.	STEADY.	BY	RATE	OF CLIMB	-600•	ВУ	OAT	
5 5	LESS	1	0	20	30	40	50	60		70	SUM				
74 84 94				•1							•1				
04 14				. 8	1.6						2.4				
24 34				•4	•2						.6				
IJM				1.3	1.8						3.1				

				TA	BLE X	LVI	I - C	on —	tin	ued ———			-	
	MINUTES	FOR 1	FORQUE VS	RPM BY	MISSION	SEG.	STEADY	ВУ	RATE	OF CLIMB	-600•	ВУ	OAT	SI
	LESS	10	20	30	40	50	60		70	SUM				
F55 274 284 294			•1							•1				
304		• 1	. A 5 . B	2.5	6.5					3.3 33.0				
314 324		• 1		5.0	1.0					10.4				
334 SUM		• 4	11.1	28.4	7.5					47.3				
	MINUTES	FOR T	ORQUE VS	RPM BY	MISSION	SEG.	STEADY.	ВУ	RATE	OF CLIMB	-300•	BY	OAT	-10
294	LFSS	10	20	30	40	50	60		70	SUM				
304					• 9					.9				
314 324				4.0	1.3 14.0					1.3 18.0				
334 SUM				4.0	16.2					20.2				
	MINUTES	FOR 1	TORQUE VS	RPM BY	MISSION	SEG.	STFADY.	BY	RATE	OF CLIMB	-300•	BY	OAT	- 8
294	LESS	10	20	30	40	50	60		70	SUM				
304				1.1						1.1				
314 324			3.9 3.2	55•3 29•1	40.5 27.4					99.8 59.7				
334 504			7.1	85.5	68.0					160.6				
	MINUTES	FOR T	ORQUE VS	RPM BY	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	-300.	ВУ	OAT	-6
	LESS	10	20	30	40	50	60		70	SUM				
94				.3						•3				
314			11.9 3.8	172.8	8.1	• 2			13	331.0 33.2				
334				.2	. 3					.4				
SUM			15.7	194.3	154.7	•2			:	364.9				
								BY		OF CLIMB	-300•	ВУ	DAT	-4
304	LESS	10	20	30	40	50	60		70	SUM				
314			2.8	259.4	183.2	• 1			•	37.6				
334 5UM				275.2		•1			13	483.1				
	MINUTES	FOR T	ORQUE VS	RPM BY	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	-300+	ВУ	OAT	-2
	LESS	10	20	30	40	50	60		70	SUM				
14			123.7	169.3	28.0	7.2			1	28.7				
34		• 5	-	72.7	5.8		•			75.7				
UM		. 5	220.4	244.7	34.4	7.2				2.7				

				T	ABLE 2	(LVI	:I - C	on	tin	ued				
														
	MINUTES	FOR TO	PQUE VS	RPM BY	MISSION	SEG.	STEADY.	ВУ	RATE	OF CLIMB	-300•	BY	OAT	0
294		10	20	30	40	50	60		70	SUM				
304 314 324		1.3	3.4 153.7 59.3	35.8 117.4 35.2	12.8					39.2 285.2 94.5				
334 SUM		1.3	216.4	188.4	12.8					418.9				
	MINUTES	FOR TO	RQUE V5	RPM BY	MISSION	SEG.	STEADY.	ву	RATE	OF CLIMA	-300+	вч	OAT	20
274	LESS	10	20	30	40	50	60		70	SUM				
284 294				• 9						. 9				
304 314 324			39.2 11.9 37.6	28.1						67.3				
334 5UM			88.6	13.8					;	51.3 133.9				
		FOR TO			40			BY		OF CLIMB	-300•	BY	DAT	40
304 314	LESS	10	20	30	40	50	60		70	SUM •2				
324 334			6.8	11.6						18.5				
SUM			7.1	11.6						18.7				
	MINUTES	FOR TO	PQUE VS	RPM BY	MISSION	SEG.	STEADY.	вч	RATE	OF CLIMB	-300•	BY	OAT	SUM
274	LESS	10	20	30	40	56	60		70	SUM				
284 294				• 9						• 9				1
304 314		1.3	42.6 308.2	65.3 776.7	412.8	7.3			15	108.7 506.1				
334		•5 1•7	208.2	203.3	76.4 .3 490.3	•2				488.5 3.1 107.4				
SUM		1.07	559.0	1049.0	470.3	7.4			2	107.4				
	MINUTES	FOR TO	RQUE VS	RPM BY	MISSION	SEG.	STFADY.	RY	RATE	OF CLIMB	300+	ВУ	OAT	-80
304	LESS	10	20	30	40	50	60		70	SUM				
314 324			• 1	1.1	1.2					2.3				
334 5UM			• 1	1.6	1.2					2.9				
	MINUTES	FOR TOR	QUE VS	RPM BY	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	300•	BY	OAT	-60
	LESS	10	20	30	40	50	60		70	SUM	2000		VH.	.00
304 314 324			• 1	3.9	1.8					5.8				
334 SUM			.5	•8 4•6	2.2					1.5 7.3				
,,,,,,,				7.0						, , ,				

					7	ABLE	XLV	11 -	Со	nti	nued				
					RPM BY	MISSION	SFG.	STEADY.	BY	RATE	OF CLIMB	300•	BY	OAT	-40
304	LESS		10	20	30	40	50	60		70	SUM				
314 324 334					8.7 .6	4.0 •1					12.6				
SUM					9.3	4.1					13.3				
	MINUTES	FOR	TORG	UE VS	RPM BY	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	300•	BY	DAT	-20
294	LESS		10	20	30	40	50	60		70	SUM				
304 314				2.4	•1 4•2	1.0					•1 7•6				
324				2.1	1.5	•1					3.7				
334 SUM				4.5	5.9	1.0					11.4				
	MINUTES	FOR	TORG	UE VS	RPM BY	MISSION	SEG.	STEADY	ВY	RATE	OF CLIMB	300+	вч	OAT	0
294	LESS		10	20	30	40	50	60		70	SUM				
304				.6	.7						1.3				
314				4.2	3.0	• 1					7.3 1.6				
334 SUM				5.9	4.4	•1					10.3				
	MINUTES	FOR	TORG	DUE VS	RPM BY	MISSION	SEG.	STEADY	ву	RATE	OF CLIMB	300+	вч	OAT	20
204	LESS		10	20	30	40	50	60		70	SUM				
294 304				. 8	2.0						2.8				
314 324				1.2	• 2						2.2				
334 SUM				2.1	3.1						5.2				
	MINUTES	FOR	TORQ	UE VS	RPM BY	MISSION	SEG.	STEADY.	ВУ	RATE	OF CLIMB	300•	вч	OAT	40
214	LESS	1	10	20	30	40	50	60		70	SUM				
314 324					•1						-1				
334 SUM					-1						•1				
	MINUTES	FOR	TORG	UE VS	RPM BY	MISSION	SEG.	STEADY	ВУ	RATE	OF CLIMB	300•	BY	OAT	SUM
204	LESS		10	20	30	40	50	60		70	SUM				
294 304				1.4	2.8						4.2				
314				6.7	21.1	*8.0					35.8				
324 334				4.9	5.0 .1	•6					10.4 •1				
SUM				13.0	28.9	8.6					50.5				
	MINUTES	FOR	TORQ	UE VS	RPM BY	MISSION	SEG.	STEADY.	84	RATE	OF CLIMB	600•	BY	OAT	-80
304	LESS		10	20	30	40	50	60		70	SUM				
314 324					•2	•2					.3				
SUM					•2	• 2					• 3				

				-									•	
	MINUTES	FOR TOR	QUE VS	RPM BY	M15510A	SEG.	STEADY	ВУ	RATE	OF CLIMB	600,	ВΥ	OAT	-6
304	LF55	10	20	30	40	50	60		70	SUM				
314				• 3	• 2					.4				
SUM				• 3	•2					.4				
	MINUTES	FOR TOR	QUF VS	RPM BY	MISSION	SEG.	STEADY	ВУ	RATE	OF CLIMB	600,	BY	OAT	-40
304	LE55	10	20	30	40	50	60		70	SUM				
314 324				•2	•1					•3				
SUM				•2	•1					•3				
	MINUTES	FOR TORG	OUF VS	RPM BY.	MISSION	SFG.	STEADY.	ВУ	RATE	OF CLIMB	600•	BY	OAT	-20
304	LESS	10	20	30	40	50	60		70	SUM				
314 324				• 1						• 1				
SUM				•1						•1				
	MINUTES	FOR TORG	UE VS	RPM BY	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	600.	ВУ	OAT	20
314	LFSS	10	20	30	40	50	60		70	SUM				
324			• 3							• 3				
SUM			• 3							.3				
	MINUTES	FOR TOR	OUF VS	RPM BY	MISSION	SEG.	STEADY.	ВУ	RATE	OF CLIMB	600+	3 Y	OAT	SUM
304	LESS	10	20	30	40	50	60		70	SUM				
314 324			• 3	.7	.4					1.1				
334 SUM			.3	•7	.4					1.4				
	MINUTES	FOR TORG	DUE VS	RPM BY	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	900.	BY	OAT	-80
	LESS	10	20	30	40	50	60		70	SUM		-	•	- 50
304 314				- 1						•1				
324 SUM				•1						•1				
	MINUTES	FOR TOR	DUE VS	RPM BY	MISSION	SEG.	STEADY.	ВУ	RATE	OF CLIMB	900•	BY	OAT	-40
	LESS	10	20	30	40	50	60		70	SUM				
304 314				-1						•1				
324 5UM				•1						•1				

							TABLE	XLV	'II -	Сс	nc1	uded				_
	MINUTES	FOR	TORQU	IE VS	RPM	ВУ	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	900•	ВУ	OAT	
	LESS	1	0	20		30	40	50	60		70	SUM				
304				. 1								-1				
324												• •				
SUM				• 1								-1				
	MINUTES	FOR	TORQU	E VS	RPM	BY	MISSION	SEG.	STEADY.	BY	RATE	OF CLIMB	900•	Вч	OAT	\$l
	LESS	1	0	20		30	40	50	60		70	SUM				
304 314				•1		. 2						• 3				
324																
SUM				• 1		• 2						• 3				
	MINUTES	FOR	TORQU	F VS	RPM	EY	HISSION	SEG.	SUM.	BY	RATE	OF CLIMB	SUM.	ВУ	OAT	51
	LESS	1	0	20		30	40	50	60		70	SUM				
E55 274	• 2			. 1								•2				
284	• 1			• •	ſ.	9	•0					1.0				
294	• 1					. 1	•0					• 2				
304 314	. 3	20			150		2.0	• 1				06.5				
124	2.7	29. 50.			1259. 380.		595.8 167.4	9.8	•1			80.6				
334	• 2	,,,,		1.0		2	1.6	17 6 0	• •		7	9.5				
SIJM	4.2	30.		0.6	1797		766.9	18.7	• 2		35	67.7				

TABLE XLVIII. TIME FOR LONGITUDINAL CYCLIC BOOST TUBE STEADY LOAD VERSUS AIRSPEED BY WEIGHT AND ALTITUDE

	m1++1+5	F('# C	TOTAL CO	NU V5	4[4546]	HT #F [GH]	A-100+		LTITUDE	Lt 55	•						
55 40 60 70 70	L+5×	-4×11	ا إلى يات ت	- 350	- 400	-250 -20n	+150 ,4	-100 .7 .8 .4 .5	100	150	200	25∩	300	357	410	457	5
#U #5									••								
4 :								• 2									
) il 3 5 1 (1								1 • 7 3 • 4									
1								12.0	• •								1
	m [m] 1 F S	P(# {	7(L](L1	190 V5	#1#2mbf0	er melumi	A 100+	HT 1	LT1TUDE	-6000	υ						
55	LF55	>0	-400	- 550	- 3 uti	-250 -200	-150	+100	100	150	2)0	250	300	350	400	450	5
6 () 6 ()								2.2	•2	1.0							
19								1.4		. 4							
0								• 9		2.7	1.5						
' >								. /	•1	1.8	• 1						
) P 1								1.N 2.0	1.4	. 3							
12								16.9	6.6	11.5	2.6						,
	#11 164	+ i # (ricic di	NII +5	WIMPHE.	PT #1 [1911	• Harr	Ter a	L 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 1000	,						
, ,	L . 5 .	-47(3"	- 17 '	→ ∮110	-//0/-	-170	-129 -29.7	100	150	277	250	300	350	470	45n	5
•								3.1	2.5								
٠,								1.1	1.9	7.7	•4						1
								2.7 2.H	1.2	12.9	. 3 . H						1
, ,								1.6	34.9	7.0							4
•								9.4 4.6	7.0 7.0	7.2	. 5						1
								15.0 5.7			1.5						1
								90.H	104.6	#3.9	7.1						28
	#,+ 1#5 LF55	P* H (•(,}(_j)	45 VS	- 400 #1426660	#Y +F[GH]	* 100 •	#Y 4	100 11100E	150	400	25n	300	350	470	457	5
								.4		• 2.5		. ,	2. 9	,,,,	- 70	- 61,	•
fr.								•1	.;								
								1.0	1.5	.1							
								2.8 2.7	3.5 A.4 13.8	•1	1.7						1
								2.5	0.1	• *	1.4						ì
								1.0									
/-								.0									
								14.5	34.1	1.0	14,0						٠
						PY WE SHIP	A Jrija		LTITUPE	1000		20.	300	44.0	4110	459	5
۱۰ ۶	LESS	-450	-4 ()/1	- 171,	- 9 96	-250 -20"	-150	- F/1C	111-)	1.0	1.16	250	300	350	• 181	• • • •	3
10								. 5									
ווט לינו								1.2									

					T	ABI	E X	LVI	Π.	- Co	nti	nue	d ——					
	MINUTES	F(1H (۲۲ اد دا	NU V5	# [HZhf Fi)	PT WE	Junt	4000·	HY A	LTITUDE	Sur							
LF55 40 60 70 75 40 45 40 45	LESS	-450		-350	-300	-250	-200	-150	-100 23.3 11.1 5.9 3.3 4.6 4.6 3.4 8.0 7.6	100 2.9 3.2 7.2 5.3 4.9 6.5 18.8 45.0	150 1.2 1.1 8.5 20.8 15.6 21.1 8.2	200 1-1 2-2 1-9 2-0 8-9	250	300	350	600	450	5UP 24.H 14.0 10.2 6.6 18.7 31.4 27.7 44.0 66.6 75.6
110 110 115 120 125 50m	#[PIUTES	FOH C	*{ } 	'Nu V5	4[H5PEE(BY WE	[GHT	•4 1000•	11.5 14.0 15.7 5.3 .0 134.8	8.9 2.8 .3 .9 150.7	7.6 6.8 .4 96.5	21.4						31.8 24.9 16.4 6.2 .0 403.8
LF55 40 60 70 75 80 87 90 95 100 110	LESS	-690	-6(4)	-350	-300	-250	-200	-150	-100 2.2 1.4 .7 .8 1.2 2.2 4.6 2.1 1.0 9.4	100 •8 •1 •6 3.6 1v.7 •.4 1.7 •.2	150 •1 •1 •1 •2 2•4 •5 1•8 •6	1.3	250	300	350	470	450	5UM 3+0 1+5 +7 +9 1+3 2+7 9+1 2,+0 7,-9 11+6 6+6 2-4
%∪™	MINUTES	FOP C	4CF1C F1	14U VS	AINSPEE	D7 WE	19HT	7000•	30.0 87 A	41+1	-600	0						68.9
LF55 40 60 70 75 80 85 90 95 100 105 110 115 120 50m	LESS	-450	-400	-150	-300	-290	-200	-150	-100 24.2 19.7 9.1 2.9 2.3 3.9 4.8 14.9 26.2 17.9 23.2 8.8 .1	100 4.1 1.8 .8 .6 1.1 2.9 1.9 7.5 11.7 13.7 13.7 13.6 6.8	150 •2 •0 •0 •0 •2 •1	.4 .1 .U	750	300	350	4 70	450	50# 28.5 18.0 10.0 3.1 3.4 6.9 6.9 22.0 38.0 39.8 39.8 10.0
	#INUTES	FUM C	ACTIC TI	NU V5	AIMSMEED	BA 4F.	t GHT	7000•	MA W	LTITUDE	-3000	D						
LF55 40 60 75 80 85 90 90 105 110 110 110 125 5um	LFSS	-470	-400	-370	~30v	-250	-200	1-1	-100 >0.8 18.5 14.0 5.4 20.8 97.0 71.3 150.7 H4.4 20.1 /-2 -0 -9	100 8.8 12.0 10.6 5.4 8.1 9.9 17.0 45.8 36.4 49.8 36.4 10.2 4.5 11.2	150 2-3 5-1 6-4 2-7 4-9 19-4 8-2 11-3 31-4 23-9 8-4 5-3	200 .3 .3 .3 .3 .6 .7 2.M 5.0 VM-1 15.4 2.4 W2.4	.1 .2 .0 .4	300	350	400	451)	5UP 6H-49 7-26 5-16 60-2 60-2 10-44 10-6 60-12 6
	P[:0:1+5	FEM C	rei je in	V : V5	a i m 5 m t t u	P7 WE	(GHT	7900+		LTITUDE		U						
LESS 40 40 75 40 75 40 40 40 40 40 40 40 40 40 40 40 40 40	LESS	>6	-4()*)	-35(-300	-250	-200 •1	-15U 2+d	-100 10-6 6-5 10-4 8-7 11-6 32-6 38-9 40-4 71-4 9-9 5-0 -7	100 8-2 1-3 2-9 5-7 6-1 11-9 23-0 18-3 21-6 14-7 7-0 1-5	150 4.2 4.1 1.7 1.4 1.2 9.6 9.7 10.2 10.1 7.6 2.3	200 -4 -5 -3 -3 1-3 4-6 2-1 2-1 2-7 2-9 2-0 3-7 9-0 1-3	250 .2 .0 .9 .4 .1	300	350	490	450	5UM 23.6 12.5 15.4 16.4 16.4 67.6 67.6 67.6 73.1 48.2 28.2 17.1
165							•1	2.2	204.5	122.7	69.4	30.2	1.8					434.4

							TA	\BL	E XI	LVII	I -	Cor	ntir	ued						
	MI WITES	+ ()#	() ()	IC CO	ING VS	AIRS	P FEU	MA MÉ	1441	1200•	ey A	L 11TUDE	300	D						
	LESS	-45		400	- 35()		UU	-250	-2011	-150	-100	100	150	200	250	300	350	400	450	\$UP
10 10 10 10											2.6 3.2 1.1 1.4 2.4	•1 •1 •1								2. 3. 1. 1. 2.
90 90 95 100 105 110											2.0 3.9 5.4 2.1	•0	1.0 .6 5.3 14.8 3.2	1.0						3. 18. 20.
115											24.2	1.1	25.5	12.4						63.
									*****	*****	WW 4	1 7 1 2 . IDE								
	MINUTES LESS	-45		-400	-150			-250	-200 [GH]	7000+	-100	100	600 150	200	250	300	350	400	459	56*
55 40 70 75 80 85 90 91											.1 .3 .5 .4 .7 .5 1.4									1.
	*1eni€	s Frie		11. (4105	DEEN	my	1 (14)	7/)00 •		LTITUNE	SU							
40 40 70 75	LFSS	-45		- 4 UN	-350		100	-250	-200 •1	-150	-100 93.6 44.9 37.6 22.0 31.9	100 21.9 15.3 14.1 11.8 15.4 25.3	150 6.7 9.3 8.2 4.2 5.8 29.1	200 1.3 .8 .9 1.7	250 .2 .0	300	350	400	450	5UI 126: 70: 60: 38: 54:
150 100 100 110 110 110 110 110 110											81.6 132.2 231.2 135.2 57.7 21.5 2.8 1.5	45.4 71.3 74.1 60.3 59.1 18.5 6.0	18.8 11.8 29.3 56.7 36.6 11.2 7.5	3.2 13.5 12.3 43.8 43.8 48.8 16.7	.1					151- 218- 348- 264- 177- 90- 33- 4-
11 ***									•1	3.5	941.7	438.8	235.3	130.4	2.2					1/91
	m Laurité	5 FO	(40	LIC	DNG V	5 41H	SPEE		1641	#1300 •	44	ALT11UDE	LF	55						
F55 40 80 70	LFSS	-41	ir.	-4011	- 571	. -	170	-250	-2 00	-150	-100 3.1 3.2 2.0	1.9	150 •1	2110	250	300	350	470	450	5u 3 5
64 69 69 70 70											1.0 .8 1.3 2.6 1.0	1.1	2.1							1 2 5 6 13
105 110 50"										.4	15.2	26.1	.3 3.0							
	MINUTES	FOR	CACI	.16.17	INTO US	ALUS	PFF 17	MY WE	I (sm T	#100+	4. 4	LTITUDE	400	,						
	LESS	-45		400	-350			-250	-200	-150	-100	100	-6000	200	250	300	350	410	550	5UF
55 60 70 70 80 80 80 90 90 90 90											11.7 1.7 4.9 2.6 4.6 1.0 14.9 19.4 31.7 43.2	1.6 2.9 1.9 1.9 7.1 2.5 4.8 7.9 14.2	1.0 1.4 1.3 1.7 1.1 .8	.3						14. 11. 4. 10. 21. 44.
10											27.1 4.1 .3	3H.4 15.1 .7	2.1							20. 1.

TABLE X	LVI	- 1	Co	ntir	nue	i			-		···· <u></u>
#[POTES FOR CYCLIC LONG VS A[MSPEED BY WEIGHT LESS -450 -400 -350 -300 -250 -200 -200 -60 -60 -60 -60 -60 -60 -60 -60 -60 -	#900+ -15U 1+4	-100 36-5 5-0 3-8 4-5 4-8 6-9 6-3 39-9 98-9 98-7 15-8 2-3	100 4.6 3.0 3.0 3.0 10.3 40.7 51.3 14.6 31.4 18.3 11.5	-3000 150 1-4 1-3 -8 1-4 4-3 4-1 5-5 -4 -1 -1	200 200 -2 -1 -1 -1	250	300	350	~ 10	450	50% 44.72 9.87 1.60 9.07 18.77 27.33 52.64 91.77 113.99 125.88 34.93 51.97
#INITES FOR CYCLIC LINE VS AIRSPEED BY WEIGHT LESS -450 -400 -300 -300 -250 -200 LPNS 40 60 70 75 80 90 90 91 101 110 110 110 120 124 50*	-19U •1	-100 6.0 4.8 4.2 3.4 13.4 15.8 14.3 4.6	100 4.6 4.1 7.7 10.4 10.8 14.9 32.7 22.0 29.8 16.9 5.7	1.0 1.8 3.5 1.8 1.1 4.5 19.8 28.2 6.6 2.6 1.0	200 .6 .3 1.9 1.5 1.5 1.7 1.1 .4 .5 .3	250 •1 •0 •1 •1 •2 •2	•1 •2 •3	350	470	450	5UM 12.5 12.4 14.3 15.1 25.0 49.M 40.3 47.5 20.8 6.9 2.0 326.5
#[POTES FOR CYCLIC (1999 VS AIMSMEE) FT WEIGHT LYNN = 450	#3000 -190 100 100 -00	EY All -100 57.3 20.7 15.0 11.5 18.6 39.6 74.6 137.1 43.0 6.4 .3	100 10.9 12.4 13.7 13.7 13.5 23.6 80.6 72.6 80.6 72.6 91.4 61.9 17.4	150 3.9 6.0 4.1 3.8 10.4 25.1 34.4 12.9 9.6 4.5 3.5 1.3 .6	200 .3 .2 .6 .3 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.6 1.5 1.6 1.7 .5 .7 .6 .8	.1 .0 .1 .1 .2 .2	•1	350	400	450	5UM 73.8 39.7 13.4 11 23.7 190. 156.9 216.3 234.2 109.1 25.9 2.2 2.2
#1901E5 FOR CYCLIC LONG .5 A[RSPEED BY WFIGHT LESS -450 -400 -350 -300 -250 -200 LESS 40 B0 70	9000+	-100 5.5 1.6 1.4	1119DF 100 +2 +2 +8	LE55	200	250	300	350	400	459	50M 5.9 2.1 2.4 1.7
10 80 85 95 100 110 110 110 110		.8 .7 .4 1.0 3.6 9.2 1.7	.5 .5 4.1 2.6	2.4 1.5 1.5 1.1 .9 4.2 5.3	•1 •1 •7						1.7 1.3 4.1 1.6 1.6 2.1 8.5 23.2 7.0
16" 165 508		25.1	11.9	21.5							61.1

	TAB	LE XLVI	II - Co	ncluded	1		
170 170 170 170 170 170 170 170 170 170	TELIC LUNG VS AIMNMEED HY W		HY ALTITUDE -100 100 5.4 .5 .9 .5 1.3 .5 1.0 .5 .8 .7 3.5 4.9 9.9 2.7 1.4 2.0 5.1 .0 4.5 7.5 2.2 27.3 .4 11.4 1.0 .2 .3	-6000 150 200 1 2 2 2 3 6 3 7 1 7 4 7 5 9 11 9 3 2 1 5	250 300	350 490	450 50 6.0 1.6 1.9 2.1 5.4 10.0 16.0 7.1 5.6 39.7 17.6 e.y
	-400 -350 -300 -250		71.7 25.8 BY ALTITUDE -100 100 6.3 1.8 4.0 3.4 2.6 2.3 .6 5.9	-3000 150 200 1 1 1 2 6 3 3 3 4 4 6 0 2	250 300	350 400	140.4 450 5UP 9.4 10.3 8.3 10.6
75 80 85 90 95 100 105 110 110			2-2 3-7 1-1 12-6 -8 12-0 3-8 24-3 2-8 17-1 41-4 19-4 4-7 5-2 -8	5.9 6.3 17.8 6.2 .2			11.8 20.1 33.6 34.4 20.1 60.8 9.6 .8
SUM		e limit monu.	70.3 111.6	47.4 ./			230.1
# INUTES FOR (*) LESS -450 40 60 70 75 80 85 90 95 100 105 110 50m	-400 -350 -300 -450		#Y ALTITUDE -100 100 -3 5-8 16-4 3-3 6-8 7-8 1-9	0 150 200 3 4 8 8 3 16 16 13 3 4 4 4 4 3 3 0	251 300	350 400	450 50#
-	LYCLIC LONG VS AIMSPEED MY W	E1GHT 9000+	BY ALTITUDE	SUP			
LESS -450 LESS 40 60 70 75 80 P5 90 95 100 105 117 115 12 50m	-400 -350 -300 -250	-200 -150	-100 100 15.4 2.6 6.5 4.2 5.2 3.6 2.3 /-1 3.8 y.9 5.4 27.5 10.8 36.7 5.2 29.7 3.2 29.7 3.2 29.7 43.0 31.6 15.8 y.2 5.6 36.5 4.1 13.5 1.2 6 3	150 200 1.7 1 3.4 .5 4.5 .2 5.3 .4 10.8 26.4 55.9 36.0 .1 7.4 8.6 .1 10.1 .7 17.2 5.4 6.3 5.7	250 300	350 400	450 SUM 19.M 14.3 13.5 15.0 24.4 59.2 103.4 71.0 49.7 85.3 35.8 61.7 74.7 1.5
MINUTES FOR	LYCLIC LING VS AINSPEED MY W	F19HT 3LM+	MY ALTITUDE	SUP			
LF55 =450 LF55 =40 60 70 75 80 85 90 95 100 105 110 115 120 125 50#		-200 -150 01 506 04	-100 100 199.7 36.4 93.3 34.8 93.8 34.6 59.0 54.3 96.3 92.5 135.4 169.4 22°.0 191.7 371.5 221.8 331.8 228.3 128.0 139.1 78.4 42.9 32.4 8.2 1.4 1.3		250 3CU .2 .0 .9 .5 .1 .1 .1 .1 .2 .3 .4 .0 2.9 .3		450 5UW 24444 138.8 118-1 91-6 151-9 292-4 439-4 500-4 5070-7 553-9 204-6 16-4 12-6 12-6 14-3 12-6 14-3 12-6

TABLE XLIX. TIME FOR LATERAL CYCLIC BOOST TUBE STEADY LOAD VERSUS AIRSPEED BY WEIGHT AND ALTITUDE

	MISSIES I	CH CYC	LIC LAT	v S	41H5PEFU	27 HE	1441	6000+	84 4	LTITUDE	LES	5						
411	LF55 -	450	-40"	- 170	- 500	-250	-∠00	-150	-100 1.1	100	150	20€	250	300	350	4/10	450	1.
7-3									. 2	•2								:
80°									•4 •1 •2									
105									11 107 304									1. 3.
110 115 40#									12.7	• 2								12.
	w [== 1+5 +	DM 1 #11	16 4 61	4.6	. 105066	HV 44.	I (see I	6000 e	HV (3001111	-600	6						
				- 150	-300	-250	-200	-150	-100	100	150	200	250	300	350	41)0	457	501
2									1.6	1.5								1
10									1 • 2 6 • 0	1.0								2
7									1.9									1
14.50									1.1 4.3 2.4	1.9								6
									.8 29.7	6.8								36
	•[455]	(P (Y ()	IC SAL	*5	AIMSMEEL	PY 46	[get	9000+		LTITUDE	-300							
41	r	450	• f ₀ () .	- 15()	- 50U	-250	-2011	-150 •4	-100 21.2	100 •1	150	200	250	300	350	400	450	21 #
•								•1	5.4 5.0 14.3	• 5								9
, -									21.9 19.2	• 3								19
4.									45.0	•1 •1								35 45 51
								1.0	18.7 15.9 11.9	1.7								18 18
21									3.5	2.6								•
h. 14								1.7	276.0	11.8								Z#9.
	41NUTE5 F							4000·		LTITUDE	c							
55	LF55 -	45 0 -	404 -	950	-300	-750	-200	-150	-100 •2	• 2	150	\$00	250	300	350	400	450	SUP
60 70 75									.4 .7 .3									
80 85									2.4 4.2 10.9									2.
90 95 00									19.2									10. 19.
10									16.3 5.4 .9	:1								10.17.16.
20 25									.0	•0 •0 1•1								

					Т	ABL	E X	LIX	- C	onti	inue	ed	-					
	#1NUTE	5 F(IP (A1 V5	ATHSPEE)	IGHT	6000•	87 4	LTITUDE	300	o						
45 90 95	LESS	-450	-400	-350	-300	-250	-200	-150	-100 .3	100	150	200	250	300	350	400	450	51.P
100 105 50#									1.0	•2								1.
	minute:	5 FOF 6	. YCL16 L	A1 V5	AIHSPEEL) tiv we	[GHT	6:000·	47 4	JOUI 11 J	50	-						
LF55 40 60 70 75 80 85 90 95 100	LESS	-450	-400	-350	-500	-250	-200	-150 •4 •2 •1	-100 24 · l 13 · l 8 · 0 5 · 9 17 · 2 30 · 7 27 · 5 48 · 9 65 · 7 73 · 6 29 · 9	100 .3 .7 2.1 .7 1.5 .6 .2 .1 .9 2.1 1.9	150	400	250	300	350	470	450	5UP 24. 14. 10. 6. 18. 31. 27. 49. 66. 75.
110 115 120 125								1.0	22.0 11.9 3.5	1.9 4.5 2.7								16.
SUM								1.7	302.0	20.1								403.
			ACTIC TY		AIRSPEED			7 100 •		LTITUDE	LES!							
#55 40 60 70 75 80 85 95 100 105 110	LESS	-450	- 400	-900	-300	-250	-200	-150	-100 3.0 1.5 .7 .9 1.3 2.7 8.0 21.9 7.9 11.6 5.6	•1 •1	150	200	250	300	350	470	450	5UP 3: 1: 2: 6: 22: 7: 11: 6: 2:
50 m									68.7	•2								68
F55 40 65 70 75 80 85	·[SUTES	-450	-400	-450 0000	-300	#Y #F	-20n	7000+ -150 -6	-:00 27.9 17.6 9.7 2.7 3.0 6.3 6.2	100 100 .3 .5 .4 .6 .7	-6000 150	∠ 90	250	300	350	400	450	5UP 2R. 18. 10. 3.
95 19' 105 11'									21.7 36.3 29.0 27.6 15.5	1.7 4.8 11.7								22. 3H. 33. 39. 16.
17 1								• 4	204.5	21.6								721.
	INUTES	FUR C	ILL C LA	1 v5	INDEFI.	P7 #+ 1	UHT	1000+	HY AL	. 111006	• 3+ n							
F55 40 60 70 75 Hd 85 40 45 100	Lf 55	-450	=4 Ur1	066-	- 900	-250	-200	-150 1 a 8	-107 -50-9 -35-4 -31-0 -16-5 -26-1 -54-8 -33-3 -19-3 -184-1 -142-2	100 1.2 .3 .2 .2 2.0 5.4 11.9 13.6 21.4 R.5	+3 +2 1+7	\$14C	250	300	ap.n	4.0	451	50% 68% 35% 51% 60% 65% 107% 207%
110 110 115 140							•1	2 • 1 1 • 4 • 6	49.5 21.2 2.5	2.2								94. 53. 21.

### CTELIC LAT VS ALMSWEED BY WEIGHT 7000 MY ALTITUDE 8000 LESS -850 -800 -250 -300 -250 -200 -150 -150 100 150 200 250 300 350 400 400 #############################																			
CENS	~ 1	l MITES	FOR C	KLIK LA	1 VS	AIMSPEED	FY #F1	tent.	7:100 •	EY A	LTITUDE	,							
Chin	55 50 50 70 75 50 50 50 50 50 50 50 50 50 50 50 50 50		-450	-600	-350	-300	-250	-200	-150	25.4 10.9 13.4 14.9 15.6 32.9 50.0 51.4 60.3 37.6 22.9 13.2 3.6	2 1.6 2.0 1.2 2.7 3.7 10.9 8.6 8.7 10.6 3.9 1.3	1.7 2.1 6.7 4.7	200	250	300	350	400	450	5UP 22: 12: 15: 10: 19: 38: 07: 64: 28: 17: 43:
Color Colo																			
######################################	-1	1=0165		CLIC LA	1 45	WINDLEEL	PY =F	[6 H T	70000	#¥ A	LTITUDE	3000	•						
#IPUTES FOR CYCLIC LAT VS AIRSPEED BY REIGHT 7000+ BY ALTITUDE 6000 LESS -650 -650 -650 -300 -250 -200 -150 -100 100 150 200 250 300 350 400 4 20 -1 -1 -6	500000000000000000000000000000000000000	. * > >		-4 0n	-370	- 300	-250	-200	-150	2.7 3.3 1.2 1.5 2.2 3.0 4.7 10.5 19.6	•2 •3 1•0 1•9	150	200	250	300	350	400	450	2 3 1 1 2 3 3 18 20
LESS -450 -400 -350 -300 -250 -200 -150 -100 100 150 200 250 300 350 400 4 10										59.5	4.2								63
LESS -450 -400 -350 -300 -250 -200 -150 -100 100 150 200 250 300 350 400 4 1	-	Irutes	+('W C	KLIC LA	1 V5	AIMSMEED	EY at	1941	7900•	HT 4	LTITUDE	600							
#IPOTES FOR CYCLIC LAI - AIMSMED BY WEIGHT 7000+ BY ALTITUDE SUM #IPOTES FOR CYCLIC LAI - AIMSMED BY WEIGHT 7000+ BY ALTITUDE SUM LESS														250	300	350	400	450	SU
## ## ## ## ## ## ## ## ## ## ## ## ##	•0									•1									
** 1.2 2.8 2.6 *** *** *** *** *** *** ***	413									.2	•1								
2.6 2.6 ***********************************	90									.1									1
LESS -450 -400 -350 -300 -250 -200 -150 -100 100 150 200 250 300 350 400 40555 -24 122.3 1.3 40 6883 1.9 40 40 40 40 40 40 40 40 40 40 40 40 40																			,
20 122.3 1.3 00 00.3 1.9	-	[****** S	FOR C	TELIC LA	1	AIHSPEE	64 ME	Į UHT	7000•	UY A	LTITUDE	504							
77	55 60 70 75 80	LFSN	-450	-400	-550	-300	-250	-200	2.4	122.3 69.3 58.4 36.7 47.7 99.6 120.7 189.5	1.9 2.4 1.9 9.2 10.0 24.3	.3 1.9 2.1 6.9	200	250	300	350	440	450	126 70 60 36 54 111 151 218
97 98 98 98 98 98 98 98 98 98 98 98 98 98	10							•1	1.2 2.1 1.4	240.0 197.2 81.2 25.9	24.7 18.9 6.7 5.9 1.5	1.5							264 177 90 33

TABLE XLIX - Continued

•	Irant 5	FP4 C1	CLIC LA	v5 4	INSPEED	PT #1	041	#-1CU+	HY AL	TITUDE	LESS							
	LESS	-450	-401	- 170	-400	-250	-560	-190	-100 3-1	100	150	500	250	300	350	400	•50	3.
•0									4.6	. 3	.7							3.
10									1.0			.1						1.
15									1.3	.6								2
F()									1.M 2.9 6.0	2.2		.1						
411									13.7	.6								15
UI)									1.3	••								1
10									.3									44
41									19.3	4.5	••	•5						
	11-11-11-5	P(# C	CLIC LA	r v5	. INDUEED	PT =#1	[G#1	#J00+	MY AL	111.WE	-6000							
	LFSS	-450	-409	-390	-300	-250	-20n	-150	-100	100	150	200	250	300	35e	400	450	14
>>							•1	2.1	10.2	1.0								11
60									1.1	.5								,
10									1.0	:1	. 3							
917									17.7	• • •		1.0						10
**									23.1	1.3	1.5	. #						27
45									40.6	12.6	5.0	1.4						86
00								-1	25.3	24.6	17.6	•••						20
10									1.0	4.6	12.5							1
213 213							•1	2.4	209.8	/3.1	38.9	4.4						928
55 60 70 70 70 80 80 80 90 100 110 110	#INUTES	+(₩ C -450	-400	1 V5	-900	* MY #6	10HT -200	93000	-10C 44.0 9.8 7.3 7.7 10.4 21.7 43.3 05.9 90.8 110.0 33.3 3.1	100 .6 1.3 .9 4.1 1.1 1.2 1.2 1.2 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	150 150 1.7 1.0 2.1 4.7 2.1 4.7	200	250	300	350	400	450	50 64 9 10 21 21 11 11 12 36
5U m	= NUTE	5 FOR 6	.VCL16 L/	NT V5	AIWSVEE	D MY WE	1641	MOGU+		LTITUDE		0						
E55	LESS	-450	-400	-350	-300	-290	-200	-150	-100 12.3 12.1	100 •2 •3	150	200	250	300	350	490	450	12
10 19 80									13.4 20.5 36.8 53.2	1.3 4.3 10.8 20.2	.2 2.2 5.0 2.6							1 2 4 7
90 95 100 105 110									29.1 15.2 5.0 1.6	7.8 4.8 .3 .2 .2	.,							ž
120									246.0	63.4	17.1							32

TABLE XLIX - Continued

	PINUTES		TELIC LA	11 15	4 INDAFF!	FT #1	1011	e 100 •		LTITUDE	Sui	•						
	LFSS	-450	-400	- 350	- 500	-250	-200	-150	-100	100	150	400	250	300	350	400	450	SUP
LESS							•1	2.1	37.3	1.6	.,							73.6
00									31.4	2.1	• '							39.4
10									21.9	2.1	.3	.1						31.1
00									45.9	0.1	5.0							93.9
20									111.1	16.0	3.2	1.4						150.5
40									127.6	21.1	6.2	1.0						161.9
100									100.2	24.4	11.1	. • !						210.3
105								-1	179.9	25.0	19.2	1.9						109.1
110								-	1.1	4.9	13.4							29.9
117									1.2	• • • • • • • • • • • • • • • • • • • •	•2							2.2
145																		•2
4 0•							•1	2.4	440.9	190.4	69.1	5.1						1228.4
	-100162		*(LIC LA	1 15	AIMSPEED	ev =E	1441	9000•	44 A	LTITUDE	LES							
	L+55	-450	-40"	- 170	- 100	-250	-200	-150	-100	100	150	200	250	300	350	410	450	5UP 3.9
-55									2.1									2.1
•0									2.4									2.4
10									1.2	• • •								1.7
90									4.1	3.2								1.7
45									2.9	1.1								4.1
90									1.1	• • •								1.6
100									:;	1.4								2.1
105									5.0	3.4								8.5
110									17.2	2.3								23.2
120									.,	• • • •								7.0
125									42.9	24.8								67.7
	-11-0165	F0# C1	CLIC LA	r v5	AIRSPEEU	67 - E1	GMT	9000•	e* 40	.T11UDE	-6000							
	LESS	-450	-400	- 370	-300	-290	-200	-150	-10C	100	150	200	250	300	350	400	450	SUP
655								• •	5.7									6.0
00								• •	1.3									1.0
711									2.0		•2							2.1
19									4.0	1.7	1.4							5.4
									12.0	1.2	1.4	•>						10.0
40									0.1	•1	1.0	•						7.1
100									8.5									6.4
105									4.1	10.2	1.3							19.0
110									11.2	20.3	8.1							34.1
120									5.7	4.4	2.5							17.6
145								•	13.1	44.2	16.9	.,						140.4
			CLIC LA		# IMPREED		-400	90000	-100	100	-3000	400	250	300	350	400	450	SUP
F 55	L+ 55	-450	-400	-350	-300	-450	-200	-150	9.4	100	190		250	300	230	430	-30	9.4
•0									10.3									10.3
60									10.2	.5								10.6
15									9.1	2.5								11.0
60									17.4	2.5 3.9 13.7	2.5	.1						33.6
40									27.0		6.0	••						34.4
45									10.0	3.6								20.1
100									21.5	4.1								9.8
105									:									. 8
117									•1									•1
120 50#									152.6	62.2	15.2	.1						230.1

TABLE XLIX - Concluded

•	-140162		CLIC LAI	V 5	THOMEE!	PT 40 1	GH1	90000	87 A	LTITUDE		,						
5	LESS	-450	-400	- 550	-300	-250	-200	-150	-100	100	150	500	250	300	350	400	450	SUP .
0																		.4
0																		
U									.4									
0									13.0	8.1	3.1							21.
									21.1	19.7	9.7	3.1						49.
U									3.1	19.4	7.2	2.2						27.
10									10.7		1.4							11.
,									1.9									1.
0									64.8	34.4	21.5	5.5						131.
_										,,,,	2107	7.7						••••
	~1 ~01+5		TILIC LA	1 15	41454661		1941	9000•	ev 4	LTITUDE	Sui	-						
	LESS	-450	-407	-350	-300	-250	-200	-150	-100	100	150	200	250	300	350	400	450	Sur
•									14.6									19
0								::	13.3									13
n								••	13.8	1.0	.2							19
,									15.6	4.4	4.4							24
U									31.1	31.7	7.6	3.1						103
0									34.1	10.0	14.2	2.4						11
"									33.7	4.6	1.4							34
'n									41.4	35.9								
0									24.2	31.4	1.3 P.1							35
,									10.6	11.7	2.5							24
0									1.1	• 3	•2							1
,								• *	333.4	1/5./	>3.6	>.4						>64
	~1 %u1+5	+(w (KLIC LA	t v5	WINDLEE	-Y =F	LUHT	5UP+	97 A	LTITUDE	Sui	•						
,	LESS	-450		-170	-300	-250	-200	-150	-100	100	150	400	250	300	350	490	450	5U
O							•1	1.1	132.8	4.2	.7							130
ö								.,,	111.1	6.4	100							110
"								•1	84.3	6.3		.1						191
0									231.8	47.2	12.9	.,						292
•									319.5	87.6	27.2	9.1						439
111									404.0		25.1	3.2						500
2									990.9	64.7	14.3					,		670
10								1.5	268.6	04.5	20.3	1.4				4.		353
0								3.1	135.1	44.8	21.9							204
,								1.0	49.5	22.9	2.6							76
							-1	.0	1.2	*.6	•2							12
(1)																		

TABLE L. TIME FOR COLLECTIVE BOOST TUBE STEADY LOAD VERSUS AIRSPEED BY WEIGHT AND ALTITUDE

	MINOTES		OFFECIIA	F 42	AINSPEE		1041	+000·	HA W	LTITUDE	LESS							
55	LESS	-450	-400	-970	- 900	-450	-400	-150	-100	100	150	200	250	300	350	470	450	5
•0										•1	.3							
0									•2	•2								
0									.4									
00000									•1									
0									:1									
15							1.7	1.4	• •									
0							2.1	2.3										
,,,,							3.8	>•>	3.0	.,	.,							,
	-1-0-1-5		ULLECTIV		TINDREFI	F7 =t	1947	6000•	8Y A	LTITUDE	-6000							
	4.55	-470	-400	-350	- 500	-250	-20n	-150	-100	100	150	200	250	300	350	400	450	,
									1.0	•2								
									2.4	• *								
								.,	1.0 4.3 2.4 .6	150	•2							
,									1.9	1.3	••							
									1.9									
,								1.0	4.5									
							.0	1.2	2.2									
							1.4	3.1	28.5	2.3	.5							1
		FCH 11	LLECTIVE		INSPEED	MY -4.	GHT	A 200 •	pr 4.	TITUDE	-3000							
	L+55	-450	-400	-370	-300	-250	-200	-150	-100	100	150	₹90	250	300	350	400	450	5
					,,,,	•		100	18.8	1.1	2.1				.,,			1 2 1 3 4 5 1 1 1 1
,									3.8	1.M .3	1.4		.1 .4 .1		•1	•2		
									11.6	2.2	.6		:1			•1		
,								• 1	20.3 14.4 34.0 44.6 48.3	2.2	.6							2
									34.0	1.4	::					:1		;
,								1.0	48.3	::	•2							;
							:;	1.0	13.8	•2	•1							1
:							•1	604	13.8 9.2 9.4 1.4									ì
							1.5	27.5	240.9	10.7	7.0	.,	.6		•1	.6		28
													•		-	-		
				. 45	AIMSPEED	PY	641	*000•	-100	TITUDE		40.5						
	THUTES									100	150	200	250	300	350	400	450	5
,	*140165	-450	-400	- 950	-300	-250	-200	-150	.3	•••	• ,,,	200	270					
,					-300	-250	-200		.3	•••	•,,-	200	270					
					-300	-250	-200	•1	.3			200	270					
					-300	-250		•1	.3		•1 •2 •1		270					
					-300	-250	-200	•1	.3 .4 .7 .2 1.3 1.6 3.8	•2 •6 •1 •2		•1	270					
					-300	-250	•1	•1 •1 •1 •1 •1	.3 .4 .7 .2 1.3 1.6 3.8 10.1	•?			270					1
					-300	-250	•1	•1 •1 •1 •1 •1	.3 .4 .7 .2 1.3 1.6 3.H 10-1 19-1 16-3 5.0	•?			270					1
					-300	-250	•1	•1	.3 .4 .7 .2 1.3 1.6 3.8 10.1 19.1 16.3 5.0	•?			270					111111111111111111111111111111111111111
					-300	-250	::	.1	.3 .4 .7 .2 1.3 1.6 3.8 10.1 19.1 19.1 10.3 5.0 .2 .6	•2 •6 •1 •2	•1 •2 •1	.1	270					
					-300	-290	•1	.1 .1 .1 .2 .1	.3 .4 .7 .2 1.3 1.6 3.8 10-1 19-1 10-3 5.0 .2	•?			270					
	(PSS	-450		-350	-300		.,	.1	.3 .4 .7 .2 1.3 1.6 3.M 10-1 19-1 16-3 5.0 .2 .6 .1	•2 •6 •1 •2	•1 •2 •1	.1	270					
	(PSS	-450	-400	-350			.,	01 01 01 02 01 04 09 01	.3 .4 .7 .2 1.3 1.6 3.M 10-1 19-1 16-3 5.0 .2 .6 .1	.2	•1 •2 •1	.1	250	300	350	420	450	•
	chan	-450 FOH CC	-400	-350	I IMSME EU	MY WEI	•1 •4 •5	01 01 01 02 01 03 01	-3 -6 -7 -2 1-3 1-6 3-M 170-1 19-1 16-3 5-0 -2 -6 -1 -0 5-4 -7	.2 .5 .1 .2	•1 •2 •1	.1		300	350	420	450	111111111111111111111111111111111111111
	chan	-450 FOH CC	-400	-350	I IMSME EU	MY WEI	•1 •4 •5	01 01 01 02 01 03 01	-3 -6 -7 -2 1-3 1-6 3-H 19-1 19-1 10-3 5-0 -2 -6 -1 -0 5-7	.2 .5 .1 .2	•1 •2 •1	.1		300	350	420	450	•

TABLE L - Continued

	MINUTES		DLLECTIV	e v5	AIMSPEEL		1641	60000		LTITUDE	SUP							
LESS 60 60 70	LF55	-470	-400	-950	-900	-250	-500	-150	-100 21.7 9.1 7.1 4.6 14.1	100 1.1 2.1 1.2 .6	150 2.4 1.4 .7	.3	250 •1 •1 •4 •1	300	350 •1	+90 •2 •1	450	5UP 24.8 14.0 10.2 6.6
#0 #5 90 90 100 105							•1 •4	02 01 02 00 40 704	26.9 26.3 46.5 65.4 69.8 21.0	2.4 2.9 .9 1.6 .6	::					:1		31.4 27.7 49.0 66.6 75.6 31.8
110 115 120 125							7.0	12-1 6-3 4-7	9.4 10.0 1.5 .0	14.4	1.3	1.0			.1			24.9 16.4 6.2 .0 403.8
					AIRSPEE	I STATE OF THE PARTY OF THE PAR		7000•		LTITUDE	LESS							
LESS 40 60 70 75 60 85		>0	-400	-550	-300	-290	-200	-190	-100 2.6 1.0 .4 .8 1.1 2.7 7.9	100 .4 .6 .3 .1 .3	150	200	250	300	350	400	450	3.0 1.5 .7 .9 1.3 2.7
100							2.6	1.7 .6 9.7 2.0	19.8 6.9 1.3 2.0 1.9	::	•0							72.0 1.9 11.6 6.6 2.4
119 50M							3.1	14.5	48.4	2.9	•0							AH.9
	•1:-01+5	(1	:1 L L C T I V	. vs	11454661	MY #F1	[GHT	7700•	UY A	LTITUDE	-6000							
1855 40 61 40 40 40 40 40 40 40 40 40 40 40 40 40	LESS	0	-400	-350	-300	-250	-200	-150 -1 -0 -0 -1 -1	-100 25.3 15.3 9.5 2.6 3.1 6.3 4.3	100 2.4 2.2 .2 .3 .2 .1	150 .3 .2	200	250	300	350	400	450	50F 28.5 18.0 10.0 3.1 3.4 6.9
100 100 100 110 110 110							1.0 .9 3.7 7.3 2.4	10.7 11.3 11.4 8.0 4.2	10.3 25.8 18.6 23.4 6.5	:1	•1							38.0 33.8 39.2 16.1
SUM							20.2	49.1	191.5	5.6	••							221.0
SUM	≈14UTES	F0# C0	N LECTIVI	. v5	AIMSMEEC	ev =+1		*9-1		5.6 LTITUDE	-3000							
LESS 40 60 70 75	MINUTES LESS	+64 C0 -490	# LECTIV	2 VS 1	-900 -900 -0	-2-0 -2-0	-200 1.9	7000+ -150 -2-0 -3 -4 -6	-150 56-2 12-7 14-0 HeB 21-H	100 5.7 8.5 7.7 8.7 8.7	-3000 150 7-1 8-8 5-6 2-6	200	250 1.7 .8 .3 .0	300 •1 •0	350 •4 •2	6 70	450	SUP 68.9 35.9 31.3 16.8 28.4 60.2
LESS 400 60 70 75 80 90 95 100					-900	-250 •1	-26U 1.9 2.1 4.2 4.3 13.6 9.5	7000 • -150	-150 96-2 12-7 14-0 HaB 21-M 90-3 90-3 17/-1 120-M	100 5.7 8.5 7.7 3.9	-3000 150 7-1 8-8 5-6 2-6	200	1.7	•1		470	450	SUP 68.9 39.9 31.3 10.8 28.4 60.2 102.8 407.2 150.6
LESS 40 60 70 75 80 85 90 90 100 1110					-900	-250 •1	200 1.9 2.1 4.2 4.3 15.6 9.5 1.1	7000150 -000000000	HY AI -150 12-7 14-0 H-B 21-H 50-3 53-4 90-0 177-1 120-0 76-0 23-7 10-9	100 5-7 8-5 7-7 3-9 4-7 4-0 3-7 -6	-3000 7-1 8-8 5-6 2-6 -5 1-6	200	1.7	•1		410	450	5UP 68.9 35.9 31.9 31.9 28.4 60.2 65.4 102.8 207.2 190.6 99.0 93.8 27.3
LESS 40 60 75 80 85 90 95 105					-900	-250 •1	200 109 201 402 403 1506 905 701	7000 • -150	HY AI -150 56-2 12-7 14-0 H-B 21-H 90-3 90-0 177-1 120-M 76-0 23-7	100 5-7 8-5 7-7 3-9 4-7 4-0 3-7 -6 1-3	-3000 7-1 8-8 5-6 2-6 -5 1-6	200	1.7	•1		4 70	450	5UP 68.9 39.9 31.3 16.8 28.4 6U.2 65.4 102.8 207.2 100.6 99.0

TABLE L - Continued

	1.016.0	FOR C	A CFC 110	£ 12	VINDA661		GA1	1300.	77 4	LTITUNE	0							
55	LF 55	-450	-400	- 550	-300	-250	-400	-150	-100	100	150	400	250	300	350	400	490	25.6
417									11.4	3.2 1.3		:	:	.2				12.
70								::	15.4		.6	:-	.5	•2				19.
15								1:1	34.8	1.7	:5	:3	::	:1	•0	:1	.1	38.
60							•1	2.4	34.8 63.5 61.9	:	1.0				0.0			67.
45						1.1	1:1	101 204 102 103 101 208 208	70.9		.2	.0	-1					75.
00						2.0	1.1	2.0	21.9	.,	•1	.0						28.
10						1.4	1.0	2.0	***									17.
20								.,	•2									
25 UM						1.5	٠.٠	15.7	3/7.3	1>.2	3.0	3.5	1.7	••	•1	.3	.1	434.
			LLECTIV		A I H SPEED	B7 WF 1	641	7000 •	87 AI	.T1TU00	3000							
	LESS	>0	-400	-990	-300	-290	-200	-130	-100	100		200	250	300	350	400	450	50*
•0 •0								•1	2.0		-2							3.
10								•2	1.0									1.
10								1.1	1.2									2.
50								.2	3.0	-1								3.
45							•1	•1	20.4	•1								20.
40									4.3									*:
10							1 21											63.
UP							•'	2.9	60.0	•2								•
E55	LESS	-490	-600	-120	-300	-250	-200	-150	-100	100	150	¢00	250	300	350	400	450	SU
70 75 80 75 90 95		-450	-400	-350	-500	-290	-200	-150 .4 .6 .6					250	300	350	400	450	1 1
70 75 80 80 90 90			-400	-990	-300	-250	-200	::	-100				290	300	350	400	450	;
70 75 80 85 90 95 100 50m	-[wute:	5 +(***) (OLLFCTIN	ve vs	#IM2NFF!) PT ME	[Get]	100	-100	100	150	200				490	450	3
70 75 80 85 90 95 100 50m							1(ph) -400	7000 150 3-1	-100	100	150	200 1.3	250	300	350			1 1 3 1 1 2 1 2 1
70 75 80 95 95 100 50m	-[wute:	5 +(***) (OLLFCTIN	ve vs	41M2NFFF) ev se	1(ph) -400	7000-	-100 -13 -29 -4 -10 -100 104-0	100	150	200 1.3	250 2.1 1.3	300				1 1 3 1 1 2 1 2 1
70 75 80 95 95 100 50m	-[wute:	5 +(***) (OLLFCTIN	ve vs	41M2NFFF) ev se	1041 -200 1.9	7000- -150 3-1 -00 10-4 10-4	-100 -13 -29 -4 -10 -100 104-0	100	150	200 1.3	250 2-1 1-3 -8	300	350	490	450	5U 12e 70 60 38
100 100 100 100 50m	-[wute:	5 +(***) (OLLFCTIN	ve vs	41M2NFFF	-25U -25U -1	[GH] =-200 1+9	7000+ -100 3-1 -000 1-4 1-5	-100 -13 -29 -4 -10 -100 104-0	100	150	200 1.3	250 2.1 1.3	300	350 .4 .2 .0	470		5U 12e 70 60 38
100 100 100 100 50m	-[wute:	5 +(***) (OLLFCTIN	ve vs	41M2NFFF	-25U -25U -1	[GH] =-200 1+9	700U 15U 100 100 100 100 100 100 100 100 100	-100 -11 -3 -5 -4 -3 -10 -100 -100 -100 -100 -100 -100 -1	100	150 150 2-1 9-5 1-9 1-9 1-9	200 1.3	250 2-1 1-3 -8	300	390 .4 .2	490	450	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
60 70 75 80 40 40 40 50 M 50 M 50 M 50 M 50 M 50 M	-[wute:	5 +(***) (OLLFCTIN	ve vs	41M2NFFF	-25U -25U -1	[GH] =-200 1+9	7000- -150 3-1 -5 -5 -5 -5 -5 -5 -5 -5 -5 -5 -5 -5 -5	-100 -11 -3 -5 -4 -3 -10 -100 -100 -100 -100 -100 -100 -1	100	150	200 1.3	250 2.1 1.3 .2 .1	300	350 .4 .2 .0	490	450	SU 120 70 90 91 11 191 210 20 20
60 70 75 80 70 75 80 70 70 80 70 70 80 70 70 80 70 70 70 80 70 70 70 70 70 70 70 70 70 70 70 70 70	-[wute:	5 +(***) (OLLFCTIN	ve vs	41M2NFFF	.9 ev et	1(ph) 1.9 3.1 5.4 8.2 17.7 14.3	7000- -150 3-1 -05 1-5 4-0 6-7 26-0 40-0 726-6	-100 -13 -22 -4 -33 -11 -88 1-2 -100 104-6 39-7 37-3 44-0 95-8 132-3 187-2 300-4 206-1 127-3 37-6	100	150 150 2-1 9-5 1-9 1-9 1-9	200	250 2.1 1.3 .2 .1	300	350 .4 .2 .0	490	450	Sul 120 120 120 120 120 120 120 120 120 120
60 70 70 80 90 90 90 90 90 90 90 90 90 90 90 90 90	-[wute:	5 +(***) (OLLFCTIN	ve vs	41M2NFFF	-25U -25U -1	1(ph) 1.9 3.1 5.4 8.2 17.7 14.3	7000. -150 3.1 .0 1.0 1.0 4.0 1.0 7.2 6.0 4.0 4.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2	-100 -13 -25 -4 -3 -3 -1 -8 -100 104 -6 -39 -7 -38 -3 -3 -3 -3 -3 -3 -3 -3 -3 -3 -3 -3 -3	100 100 12.0 14.5 9.5 3.3 4.8 1.5 1.9	150 150 2-1 9-5 1-9 1-9 1-9	200 1.3	250 2.1 1.3 .2 .1	300	350 .4 .2 .0	490	450	Sur 30 00 00 00 00 00 00 00 00 00 00 00 00
60 70 70 80 90 90 90 90 90 90 90 90 90 90 90 90 90	-[wute:	5 +(***) (OLLFCTIN	ve vs	41M2NFFF	.5 ev at	301 301 302 109 100 100 100 100 100 100 100 100 100	7000150 3-1 -50 1-6 1-6 1-6 1-6 1-6 1-6 1-6 1-6 1-6 1-6	-100 -13 -29 -4 -33 -31 -10 -100 -100 -104 -39 -38 -38 -37 -38 -38 -4 -00 -206 -1127 -37 -37 -37 -37 -37 -37 -37 -37 -37 -3	100 100 12.0 14.5 9.5 3.3 4.8 1.5 1.9	150 150 2-1 9-5 1-9 1-9 1-9	200 1.3	250 2.1 1.3 .2 .1	300	350 .4 .2 .0	490	450	SUL 124 100 100 100 111 111 111 111 121 244 244 177
60 70 75 80 70 75 80 70 70 80 90 90 90 90 90 90 90 90 90 90 90 90 90	-[wute:	5 +(***) (OLLFCTIN	ve vs	*300 *300	.9 ev et	3-1 3-1 3-1 3-1 3-1 3-1 3-1 3-1 3-1 1-9 20-2 4-1	7000150 3-1 -50 1-6 1-6 1-6 1-6 1-6 1-6 1-6 1-6 1-6 1-6	-1CC -1 -3 -5 -4 -3 -1 -8 -1 -5 -4 -0 -10C -39-7 -38-3 -27-3 -38-3 -27-3 -38-3 -27-3 -37-6 -102 -102 -103 -102 -103 -102 -103 -102 -103 -102 -103 -103 -103 -103 -103 -103 -103 -103	100 120 14-5 9-5 3-3 4-8 1-5 1-4	150 2-1 2-2 3-7 3-7 3-7 1-9 1-9 1-9 2-7	200 lo3 % w U 3 lo3 lo3 lo3 lo3 lo3 lo3 lo3 lo3 lo3 l	290 2•1 1•3 •8 •2 •1	300 .3 .2 .1	350 •4 •2 •0 •0	470 -1 -2	450	Sul 120 600 300 111 134 200 177 900 333

					TA	BLE	L	- Co	onti	nue	i							
1	41144		er tectiv	, vs	11m2m461	P7 41	[9HI	4900+	HY 4	LTITUDE	LES:							
Lt	5.			-150	- 900	-250	-200	-150	-100	100	150	200	250	•00	350	400	450	50*
***								1.0	3.4									101
• 1									2.4									:::
10 10 10 10 10 10 10 10								•1	1.0	::								1.5
									2.4 5.1	•0								2.4
***									6.0		.0							0.0
									12.0	1.3	•0							13.5
100																		•
110								1.5	40.2	2.9	.1							•••
=14	UTES	+na c	OLLEGTIV	Æ VS	4145466	DY WE	LONI	#20U+		LTITURE	-6000							
LE	55	-490	-400	-350	-300	-290	-200	-190	-100	100	150	200	290	300	350	470		14.7
40								::	13.3 9.0 9.7 4.9 6.3 7.9	1.9	:1							11.H H.2 5.H H.3 10.6
60								1.3	3.1	1.9 .0 .1	•1	.1						3.5
60 70 75 80								1.0	•.5	.2	.2							
80							1.0	3.0	12-0	.0	.1							
90 90							1.0	3.5	20.9									11.
100							1.0	***	20.9 30.1 31.9 22.6	•0								80.
105								91.0	22.6	.0								20.
10							•••	13.7	1.0									1.
50m							22.1	1/1.0	174.8	4.2	••	•1						129.0
			OLLFCIIV	e v5	AIMSPEFE			#900•		LTITUDE	-3000			***				
55 LF	55	-450		-350	- 900	-250	-200	-120	-100 43.0	100	150	\$00	250	300	350	400	*50	5UP
40								1.	***	1.3	1.6	:5	:2					90 70 90 180 270 920
10							.3	• '	4.4	1.3	1.6		••					
15										••	.3	-1						18.
							.2	3.0 1.5 3.5	22.6 50.6 77.4 103.2 121.7 33.2 3.2	1.4 •1 •2		.1						52.
49							.3	10.4	103.2	:2								
rare.								3.1	121.7	.;	•2							125.
10							:'		3.2									3.
15 20							2.3	26.0	-1	5.4	4.1	1.5						>2#.
		A.D. C.					2., [GHT	#00U+		LTITUDE	•••							•
LE		-490	-400	-370	-300	-49U	-200	-150	-100	100	150	400	250	300	350	400	457	500
•0							.2		12.0	3.3	1.2	.,						12. 12. 14. 15. 25. 49. 70. 46.
60								:2	10.3	1.3	1.2		:2	•1				14.
70							.3	3.0	17.4	1.3	.3	.2		•1 •0				25.
80								12.0	39.9		••		.1	.0				49.
70 79 80 89 90							1.0	1.4 3.9 12.8 37.0 9.0	11.6 19.4 39.9 37.3 39.1 22.7	.9 .9 1.4 .3	:	•1						46.
99							2.9	209	22.7	•1	:2							42.
09							••	***	14.3 5.7 2.0	.;	::							20. 6. 2.
10									2.0									2.
15									:									:
							••1	**.*	212.7	•••	4.5	1,5	••	.,				324.
	****	-490	-400	ve v5	-300	-290	-200 [W1	+300 ·		100	150	200	250	300	350	400	450	-
+ **	75	50		-370	-3110	-250		50	71.3 23.0 24.1 24.2 44.3	1.9 7.1 3.2 2.2 1.0 2.9				300	330	-00	-30	39. 39. 31. 31. 90. 196. 161. 216.
60							.2	2.4	23.0	3-2	2.0	1.0	:	-1				37.
**							.,	3.1	24.2	2.2		:		•1				31.
60 70 70 60 60 60 60							.;	17.0		2.5	1.3		.1	•0				90
*>							3.1	42.0	100.9	1.5	.2							196.
90							4.0	13.5	140.0	1.5	.:							210.
100							3.1 3.1 4.0 9.0	2-4 3-1 3-8 17-0 42-0 17-0 13-3 78-4	100.2	.3	.2							109
110							4.5	14.5	1.1	••	••							234 109 25
115								• '	1.5									2
1/2														7,40				
50.							32.4	1.062	450.4	4.55	9.3	3.1	1.0	•3				1550

TABLE L - Continued

	-1110165		LLECTIO	t v5	AIMSMEED	ev ##1	GH1	90000	EY A	LTITUDE	LESS							
55 60 70 70	LFSS	-450	-400	-950	-300	-250	-201	-150	-100 3.9 2.1 2.4 1.7	100	150	200	250	300	350	400	450	3.9 2.1 2.4
10 00 00 00 00 00 00									1.6 7.2 3.9 1.6	•0 •1 •2								2.4 1.7 1.7 7.3 4.1 1.6 2.1 8.9
00									1.6									2.1
10 10 20								::	7.0									23.2 7.0
								2.4	*5.2	.,								67.7
	MINUTES	+(IP CI	ULLECII	ve v5	41154661	P7 #E1	[GHT	9300•	ev 4	LTITUDE	-6000	,						
	LFSS	-450	-400	- 570	-300	-250	-200	-190	-100	100	150	200	250	300	350	400	450	5U*
40									5.8 1.3 1.8	•1	.3							1.
70									2.1									1.
15								•1	9.4 19.8	.3								10.
85									6.9	•2								10.
45									9.0		•1							/. 6. 9. 15. 39.
10								204 407 201	13.4 34.8 15.5	.3								39.
20								2.1	15.5									17.
25								9.0	124.5	1.9	.4							140.
		5 FUM C	OLLECTI	AF A2	AINSPEEL	84 .E	IGHT	9000•		ALTITUDE	-300							
ESS	LESS	-490	-400	-350	-300	-290	-200	-190	-100 8.7	100	150	200	250	300	350	400	450	5UP
60									7.7	1.8	.3							10.
70									10.3	:1								10.
M ()							.1	3.1	10.4									20.
90							•	2.5 4.2 .8	30.2									34.
00								8.U 2.1	19.3									60.
110								2.1	7.8									9.
20							•1	21.1	205.2	3.5	.3							230.
	MI-HITES	-450	-400	ve v5	-300	-250	-20U	-150 -1000	-100	LTITUDE 100	150	200	250	300	350	400	450	SUP
				-			1		•6	777	.3				•••			
55									•1	:3	.3							
41)							1.9	301	2.4	•								21.
41)							7.9	11.7	10-6									49.
41)								2.2	9.0									11.
400000000000000000000000000000000000000									10.0									
41)								•:;	10.0									10.

TABLE L - Concluded

	MINUTES	FOR C	OLLECTI	vE 42	AIRSPEEL	BY WE	GHT	9000.		LTPTUDE	SUP	•						
	LESS	-450	-400	-350	-500	-290	-200	-150	-100	100	150	200	250	300	350	470	450	SUP
£55									19.0	.9								19.
40									11.7	1.8	.8							14.
60									12.0	1.2	.3							13.
70									14.4	.6								15.
75								3.1	20.8	• >								24.
80							1.9	15.4	41.3	.6								54
85							4.9	36.5	61.5	.4								103.
40							7.9	14.0	43.3	•2								/1.
45								3.0	34.6		-1							39.
100								10.0	73.3									83.
105								9.0	30.7									35
110								5.6	57.9	.3								63
115								2.1	22.6	- 100								24
140									1.5									1
127																		
SUM							14.8	100.4	444.7	6.3	1.1							569
	~11111E×		OLL+C11	re vs	41M2MFF1	PY #F1	GHT	sum.	HY A	LTITUDE	SU							
		+(" (OLL+C111	/E VS	-100 -1454FFI	HY #F1	GHT -200	5U#+	HY A				250	300	350	400	450	Su
		+("4 E								100 16.4	50/ 150 3+2	200 1.5	250	300	350	400	450	
		+(** t			- 300	-250	-200	-150	-100	100	150	200		300		400	450	244
***		+(* t			- 300	-250	-200 1.9	-150	-100 216.6	100	150	200	250 2.H 1.6	300	350		450	244 13H
• • • •		-450			- 300	-250	-200 1.9	-150 4.8 5.0	-100 216.6 #3.5	100 16.4 25.5	150 3.2 15.7	1.3	2.4	.4		•2	459	244 13H 118
***		-450			- 300	-250	-200 1.9 .2	-150 4.8 5.0 3.6	-100 216.6 #3.5 #1.6	100 16.4 25.5 15.1	150 3.2 15.7 10.1	200 1.5 5.6 4.5	2.H 1.6			•2	450	244 138 118 91
50 00 00 00 00 00 00 00 00 00 00 00 00 0		-450			- 300	-250	-200 1.9 .2 .9	-150 4.8 5.0 3.6 4.5	-100 216.6 #3.5 #1.6 70.4	100 16.4 25.5 15.1	150 3.2 15.7 10.1	200 1.5 5.6 4.5 1.4	2.H 1.6 1.1	:5	:2	•2	459	244 138 118 91 151
50.00		+(** t			- 300	-250	-200 1.9 .2 .9	-150 4.8 5.0 3.6 4.5	-100 216.6 #3.5 #1.6 70.4 123.2	100 16.4 25.5 15.1 6.6 11.0	150 3.2 15.7 10.1 4.4 3.2	200 1.5 5.6 4.5 1.4	2.H 1.6 1.1	.3	:2	•2 •1 •2 •2		244 13H 118 91 151 292
50 00 00 00 00 00 00 00 00 00 00 00 00 0		-450			- 300	-250	-200 1.9 .2 .9 .7	-150 4.8 5.0 3.6 4.5 11.4 57.4	-100 216.6 #3.5 #1.6 70.4 123.2 232.9	100 16.4 25.5 15.1 8.6 11.0	150 3.2 15.7 10.1 4.4 3.2 3.9 2.0 1.6	200 1.5 5.6 4.5 1.4 1.8	2.H 1.6 1.1	.3	.0	•2 •1 •2		244 138 118 91 151 292 439
545050505		+(u ()			- 300	-250	-200 1.9 .2 .9 .7 .4 5.4	-150 4.8 5.0 3.0 4.5 11.4 57.4 85.9	-100 216.6 #3.5 #1.6 70.4 123.2 232.9 329.0	100 16.4 25.5 15.1 8.6 11.0 11.8	150 3.2 15.7 10.1 4.4 3.2 3.9 2.0	200 1.5 5.6 4.5 1.4 1.8	2.H 1.6 1.1	.3	.0	•2 •1 •2 •2		244 138 118 91 151 292 439 500
545050505		+(w t)			- 300	-250 •1	-200 1.9 .2 .9 .7 .4 5.4 13.5 19.6	-150 4.8 5.0 3.6 4.5 11.4 57.4 85.9	-100 216.6 #3.5 #1.6 70.4 123.2 232.9 329.0 417.3	100 16.4 25.5 15.1 8.6 11.0 11.8 7.6 3.7	150 3.2 15.7 10.1 4.4 3.2 3.9 2.0 1.6	200 1.3 5.6 4.3 1.4 1.8	2.M 1.6 1.1 .3	.3	.0	•2 •1 •2 •2		244 138 118 91 151 292 439 500 670
5556555556		-450			- 300	-250 •1	-200 1.9 .2 .9 .7 .4 13.5 19.6 22.3	-15U 4.8 5.0 3.6 4.5 11.4 57.4 85.9 76.4 62.9	-100 216.6 #3.5 81.6 70.4 123.2 232.9 329.0 417.3 579.0	100 16.4 25.5 15.1 8.6 11.0 11.8 7.6 3.7 4.0	150 3.2 15.7 10.1 4.4 3.2 3.9 2.0 1.6 1.0	200 1.3 5.6 4.3 1.4 1.8	2.M 1.6 1.1 .3	.3	.0	•2 •1 •2 •2		244 138 118 91 151 292 439 500 670
55505050505		+(w t/			- 300	-250 •1	-200 1.9 .2 .9 .7 .4 13.5 19.6 22.3 20.2	-15U 4.8 5.0 3.6 4.7 11.2 37.2 85.9 76.2 62.9 114.0	-100 216.6 H3.5 b1.6 70.4 123.2 232.9 329.0 417.3 579.0 518.5	100 16.4 25.5 15.1 8.6 11.0 11.8 7.6 3.7 4.0 2.5	150 3.2 15.7 10.1 4.4 3.2 3.9 2.0 1.6 1.0	200 1.3 5.6 4.3 1.4 1.8 .6	2.M 1.6 1.1 .3	.3	.0	•2 •1 •2 •2		244 13H 11B 91 151 292 439 500 670 657
54 10 7 20 500 100		-450			- 300	-250 -1	-200 1.9 .2 .9 .7 .4 5.4 13.5 19.6 22.5 20.2	-15U 4.8 5.0 3.6 4.5 11.2 37.2 85.9 56.2 914.0 77.4	-100 216.6 H3.5 U1.6 70.4 123.2 232.9 329.0 417.3 579.0 518.5 240.7	100 16.4 25.5 15.1 8.6 11.0 11.8 7.6 3.7 4.0 2.5 1.1	150 3.2 15.7 10.1 4.4 3.2 3.9 2.0 1.6 1.0	200 1.3 5.6 4.3 1.4 1.8 .6	2.M 1.6 1.1 .3	.3	.0	•2 •1 •2 •2		244 13H 11B 91 151 292 439 500 670 657 355 204
544 64 5 5 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5		-450			- 300	-250 -1 1.3 1.2 1.9 4.9 2.4	-200 1.9 .2 .9 .7 .4 5.4 13.5 19.6 22.3 20.2 29.6 28.1	-15U 4.8 5.0 3.6 4.5 11.2 37.2 85.9 76.2 62.9 114.0 77.4 61.7	-100 216.6 #3.5 #1.6 70.4 123.2 232.9 417.3 579.0 518.5 240.7 112.0 49.6	100 16.4 25.5 15.1 8.6 11.0 11.8 7.6 3.7 4.0 2.5 1.1	150 3.2 15.7 10.1 4.4 3.2 3.9 2.0 1.6 1.0	200 1.3 5.6 4.3 1.4 1.8 .6	2.M 1.6 1.1 .3	.3	.0	•2 •1 •2 •2		244 13H 118 91 151 292 439 500 670 657 355 204
511000000		-450			- 300	-250 -1 1.3 1.2 1.9 4.9 2.4	-200 1.9 .2 .9 .7 .4 13.5 19.6 22.3 20.2 29.6 28.1	-15U 4.8 5.0 3.6 4.5 11.2 97.2 85.9 76.2 62.9 11.6 17.4	-100 216.6 #3.5 #1.6 70.4 123.2 232.9 329.0 417.3 579.0 518.5 240.7 112.0	100 16.4 25.5 15.1 8.6 11.0 11.8 7.6 3.7 4.0 2.5 1.1	150 3.2 15.7 10.1 4.4 3.2 3.9 2.0 1.6 1.0	200 1.3 5.6 4.3 1.4 1.8 .6	2.M 1.6 1.1 .3	.3	.0	•2 •1 •2 •2		500 244 13H 118 91 151 292 439 500 677 353 204 16

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TABLE LI. TIME FOR LONGITUDINAL CYCLIC BOOST TUBE STEADY LOAD VERSUS LATERAL CYCLIC BOOST TUBE LOAD BY COLLECTIVE BOOST TUBE STEADY LOAD

=																		
	M1301F5	FCH C		LING VS			COLLECT											
-150	LF 55	-450	-400	- 150	- 300	- ∤ 5 ¹	-200	-150	-100	100	150	200	250	300	350	400	450	5u#
-100 100									•0									•0
504									•0									•0
1																		
			***		C*/ 1/		COLLECT	250										
l									7.1.									
-150	1155	-4-1	-4011	-550	- 51317	-250	->00	-150	-100	ניח1	150	200	250	300	350	470	450	SUM
100									M • O	•1		4.5						12.2
150 50#									H.O			4.5						12.3
										••								,
]																		
	MINUTES	+1 W C	** L IC I	רא טאיו.	CYCLIC	LAT MY	COLLECT	-2:10										
1	4655	-450	-400	-350	-300	-250	-200	-150	-100	10)	150	200	250	300	350	400	150	SUF
-150	61 77	-450	-40-1	- 370	- 700	-271	-200	-150						300	270	400	. 10	
100									21.4	1.3	2.9	18.4	•1					21.2
200									7.6	2.1	3.9							2.2
350									91.2	14.7	22.1	18.4	.1					147.0
1	w116.2	FILM C	YCLIC 1	LUNIO VS	CACFIC	LAT MY	COLLECT	-150										500
- 200	LF5	-450	-409	- 550	- 300	. 540	-200	-150	-100	100	150	200	250	300	350	410	450	
-200							.1	.1	112.3	88.8	90.8	44.4	.0 .1					336.4
-100							•••		64.2 28.5	35.7	31.6 16.9							131.5
150								•	4.3	,,,,,	3.2							1.4
250 50€							. 1		209.2	156.0	142.6	46.5	• 1					555.0
	M1**UTF5	+0+ C	ACTIC F	2V DPI1.	CACFIC	LAT PY	COLLECT	-1·00										1
	64.55	-450	-401	- 450	-300	-250	-207	-159	-100	100	150	200	250	200	350	470	450	SUP
-250									-1			. 1						.2 8.5
-150 -100								5.1	1165.4	961.1	382.0	4.3 95.4	1.2	•				2611.0
100									245.2	11.0	53.2 10.6	1.6	.4	•1				47.3
200									1.3	•1	• 5							1.9
N ₁ (M								5.1	1440.7	1062.3	447.4	101.5	1.7	. 3				1058.9
ı																		
	MINUTES	FUH L	Y(L](L	0NG V5	CTCLTC	LAT BY	COLLECT	100										
	LESS	-450	-400	-350	-300	-250	-200	-150	-100	100	150	200	250	300	350	400	450	5U r
-700 -150	.	0	****		,				1.3	.,,		-						1.0
-100									47.3	30.1	24.9	1.6	• 7					104.5
100									.6		24 0	1.4						107.6
4,(IM									49.1	31.3	24,9	1.6	• 7					10.10
]
																		ł
							COLLECT		155			105		100		4.00	44.0	
-200	L. 55	-450	- 4 Uf)	-350	-300	-250	-200	-150	-100	100	1 40	200	250	300	350	470	450	5UM
-150									20.6	17.3	6.5	1.5	.1					45.4
100									20.1	17.7	6.5	1.5	. 1					46.4
,,,										•								
																		i

				-		7	TABL	E LI	[-	Con	ıclu	ded							
-17 -10 -18	р п	*(1)	- F(H-)	.YCL 1C -401				-500 CUEFFC	-15t					250 •1 •1	900	350	4 10	450	50M 16+M [6+H
- 1 6/4 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	L.F	HITES	F(W (-40°)				-200	750 -150	3.0 3.0				250	3(0	250	400	457	50# 6+1 6+1
=100 =100 =100	n n	#*e\$	*(# (¥€L1€ -400				CULLECT -200	-150 -150	-100 *!				250	3€0	350	400	4 5 (1	50M 1+3 1+3
of the second se		(1 75 %)) (H (C	¥€L]€ -40°	-35U			-200 -200	350 -150	-100 -1				750	300	350	4 70	4 ×y∩	50F
- 1 %; - 1 ci 1 ci 1 %;	£.		F3 H (**************************************	(V (1411 <u>-</u> UC+	- 400		-209	4/10 -150	-100 -5 -2			200	250	900	340	440	450	51 × .?
- 1 > 1 - 1 on 1 on 1 on	L.		* W {	*CI.3C -4011	24 ami. 0ee-			-200	450 -159	-100 •1	100	150	ะกถ	250	300	350	400	450	5(F •1
-250 -200 -150 -100 -100 -100 -150 -250 -250 -250	M[***		-45C	*40"	-350	-3nu	LAT MY (-250	-200 -1	-150 5+4	-100 -1 4-3 1-26-7 335-5 -1-8 5-6 1832-1	176.6 46.8 7.2	150 .7 522.5 97.1 31.4 3.8	200 -1 6-5 106-6 1-H	250 •1 2•4 •4	300 •2 •1	350	490		5UP .2 13.1 3237.6 590.2 140.5 11.6

TABLE LII. LONGITUDINAL CYCLIC BOOST TUBE LOAD PEAKS FOR AIRSPEED VERSUS INCREMENTAL LONGITUDINAL CYCLIC BOOST TUBE LOAD BY MISSION SEGMENT

	AEFOCI	TY V5 C	Y-LNG P	EAKS 8	Y MISS	TON SEC	MENT AS	CENT								
LESS	LESS	40	60	70	75	•0	85	•0	95	100	105	110	115	120	125	SUM
-450 -400 -350 -300 -250 -250 -150 -100	1 8	1														
100	15	8	14	6	5 8	7	6	5	5	*	3	1				7
200 250 300 350 400	3	1	1	2	`2	1	1	1	1	1	1	4	1		i	2
450 51JM	33	21	18	14	15	13	15	12	9	9		6	2		1	17
ME	62.8	54.6	59.0	45.7	71,3	104.8	116.3	123.4	127.5	76,2	53,2	27.0	10,4	1.1	.3	933.
	VELOC11	Y V5 C'	roLNG PI	FAKS BY	M155	ION SEGI	ENT MAP	4UVR								
E 5 5	LFSS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
450 400 350 350 250 250 150 100 150 200	1 2	1 2 4	1 1	2	1		ı	1	2							
250 300 350 400	č	•			1		1	•								
450 \$UM	3	7	3	2	3		2	1	2							2
ME	5.7	8,7	7.7	6.2	5.6	4.6	5.1	6.7	4.9	2.6	2.0	1.3	•2	0.0	0.0	61.
	VELOCIT	Y V5 CY	-LNG PF	AKS BY	#1551	ON SEGM	ENT DES	CNT								
55 50 00 50	LF55	40	60	70	75	80	45	90	95	100	105	110	115	120	125	SUM
250 200 150	6											_	12			7;
150 250 250 250	19 9 5	1	1	1 2 1	1 1 1	9 2 5 1	1 5 3 1	5	13 7 2	9	3	1 5	1 1 2	1		26
50	19	2	4	4	3	17	10	11	22	15	13	8	6	1		15
SIJM	- 4	2	-	-	-	• •			-							

								·								
	VELOCT:	TY VS C	Y-LNG P	EAKS R	4 M15	STON SEG	MENT ST	FADY								
	LF55	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SU*
E55																
400																
50																
50																
00																
50	?									1						
00	2		,													
50	í		•													
00	•															
50																
150																
00																
50																
UM	5		1							1						
Ε	180.7	26.4	31.0	31.5	64.9	166,1	320.4	442.4	443.9	676.3	398.1	268.3	131.9	14.6	0.0	3416

TABLE LIII. LATERAL CYCLIC BOOST TUBE LOAD PEAKS FOR AIRSPEED VERSUS INCREMENTAL LATERAL CYCLIC BOOST TUBE LOAD BY MISSION SEGMENT

	VELOCIT	V VS C	Y-LAT PI	EAKS BY	M155	ION SEG	MENT AS	CENT								
.E 55	LESS	40	60	70	75	80	85	•0	95	100	105	110	115	120	125	SUM
450 400 350 300 250 200	1 2											1		i		
100	2		5	2	2	7	,	•	5	•		1	2	1		51
150 200 250 300 350 400	•			2	2	1	2			1						:
450 5UM	5		5	•	4		7	•	5	10	•	2	2	2		61
μĘ	62.8	54.6	59.0	45,7	71.3	104.8	116.3	123,4	127.5	76,2	53,2	27.0	10,4	1.1	,3	933.
	VELOCITY	VS CY.	LAT PE	LKS BY	#1551	ON SEGM	ENT MAN	UVR								
	LESS	40	60	70	75	RO	85	90	95	100	105	110	115	120	125	SUM
55 50 50 50 50 50 50 50																
70 50 00	2			1	1	2	1	1				1				1
00 50 00 50					•	•	2	1				1				10
UM E	5.7	0.7	7.7	1 6.2	1 5.6	2 4.6	5.1	6.7	4.9	2.6	2.0	1.3	.2	0.0	0.0	61.3
E	34'	••		•••	, 		•	.717	-1.0							
	VELOCITY	V5 CY	-LAT PE	AKS BY	M1551	ION SEGN	ENT DE	SCNT								
55	LESS	40	60	70	75	80	*5	90	95	100	105	110	115	120	125	SUM
50 500 500 500 500	1 7	,	i								1		1	1		1 14
100	,		i		2	1	,	5 1	5	1	1	2	1		1	29
50 50	11	,	2		2	2	7	6	5	3	2	2	2	1		49
·F	53.7	71.7	40.3	25.1	35.6	61.4	73.0	87.4	115.9	108.7	83,4	74.9	57.4	8.3	•5	896,4

TABLE LIV. COLLECTIVE BOOST TUBE LOAD PEAKS FOR AIRSPEED VERSUS INCREMENTAL COLLECTIVE BOOST TUBE LOAD BY MISSION SEGMENT

V	ELUCITA	VS COL	LFCTIVE	PEAKS	BY MISS	ION SEG	MENT AS	CENT								
45	LFSS	40	60	70	75	40	85	90	95	100	105	110	115	120	125	SUM
150	1	,	1	1	1		2	4	2	1 2		2	2			1
50	3	1	ż	i	ż		5	5	6	7		3	ì	1		4
100000	2		7	1	1	1		1	1							
S.C.	٨	1	5	3	7	1	7	10	9	10	•	5	3	1		1
F	62.8	54.6	59.0	45.7	71.3	104.8	116.3	123.4	127.5	76,2	53,2	27.0	10.4	1.1	.3	933,
V	ELOCITY	vs COLL	ECTIVE	PEAKS 8												
55 50 00	LESS	40	60	70	75	•0	85	90	95	100	105	110	115	120	125	SUM
00 00 00 00	1			i			1	1			1	1				3
00	i	1	•	ı	2		1 1	ì	1		1					19
00			•	1	1	1	i	1								3
50 50 50	3	1	5	,	2	2	•	4	2		2	ı				3
Ē	5.7	8.7	7.7	4.2	5.6	4,6	5.1	6,7	4.1	2,6	2.0	1.3	.2	0.0	0.0	61.
VI	FFOCITA	vs Coll	ECTIVE	PEAKS 6	Y MISS	ION SEGN	ENT DES	SCNT								
55 50 50	LESS	40	60	70	75	●0	85	•0	95	100	105	110	115	120	125	SUM
00 00 00	,	1	ı	2			2	2	1 2	1	2	1 5 3				1
50 50 50	2	11	12	2	2 3	5	4	2	2 2	2	1					5
50 50 50		18	18 14 7 3	2 2	1	1	2	1	Z	,	1					1
00 50 JM	3	37	56	14	12	13	•	•	7	14	4	•				10
Ē	53.2	71.7	40.3	25.1	35.6	61.4	73.0	87.4	115.9	108,7	83,4	74.9	57.4	1,3	.2	896.

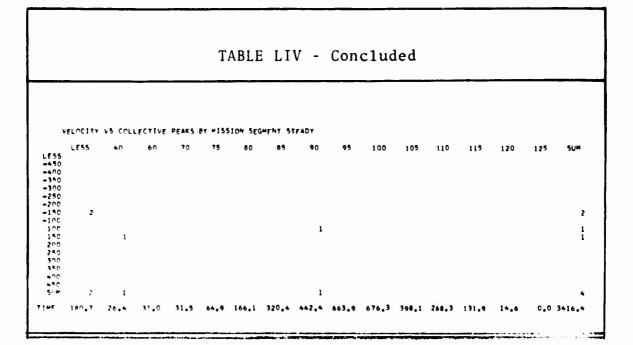


TABLE LV. GUST n_{Z} PEAKS FOR μ VERSUS n_{Z} BY MISSION SEGMENT, ALTITUDE AND C_{T}/σ

											
GUST	NZ PE	AKS FOR	MU VS	NZ	BY MISS	ION SEG	MENT AS	CENT.	ALTITUDE	-6000+ CT/S	0.04
	LESS	0.05	0.10	0.15		0.25	0.30	SUM			
1.4	LESS	0.03	0.10	0.13	0.20	0.25	0.30	JUM			
1.3					2			2			
1.2 0.8				1	3			4			
0.7				1	4			5			
0.6				1				1			
SUM				3	9			12			
TIME	3.6	15.4	15.4	71.3	57.9	.3	0.0	163.9			
									AL TITUDE	4000 6745	0.04
GUST	NZ PE	AKS FOR	MU VS	NZ	BA W122	IUN SEG	MENT AS	CENT	ALTITODE	-6000, CT/S	0.06
0.00	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
0.8				1				1			
0.6				1				1			
SUM				_							
TIME	.5	2.3	3.3	22.6		0.0	0.0	33.8			
GUST	NZ PE	AKS FOR	MU VS	NZ	BY MISS	SION SEC	MENT AS	CENT.	ALTITUDE	-6000	
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.4					2			2			
1.2				1				4			
0.8				2	4			6			
0.6				ī				1			
0.5 SUM				4	9			13			
						•3	0.0	197.6			
TIME	4.1	17.6	18.8	93.8							1.3.3
GUST	NZ PE	AKS FOR	MU VS	NZ	BY MISS	SION SEC	MENT AS	CENT.	ALTITUDE	-3000. CT/S	0.04
, ,	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.4				3	5			8			
1.2				8	8	1		17			
0.8 0.7			1	7	7			15			
0.6			•	1				1			
0.5 0.4					1			1			
0.2								•			
SUM)	19	21	1		42			
TIME	3.4	6.6	12.1	91.1	64.0	3.1	0.0	200.3			
GUST	NZ PE	AKS FOR	MU VS	NZ	BY MISS	SION SEC	MENT AS	CENT.	ALTITUDE	-3000 · CT/5	0.06
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.3 1.2				1				1			
0.8								1			
0.7 0.6				1				1			
SUM				2				2			
TIME	4.9	4.6	18.0	36.9	23.4	0.0	0.0	87.7			
		. • •		,	.,,,,	0,0	0.0	J			
l											

TABLE LV - Continued

```
GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT. ALTITUDE -3000
                      0.10
                              0.15
                                     0.20
                                            0.25
                                                    0.30
                                                             SUM
       LESS.
               0.05
 1.3
1.2
0.8
0.7
                                 3
                                        5
                                                              18
 0.6
 0.5
                                        1
                                                               1
                                21
                                       21
                                               1
TIME
                             128.0
                                   107.4
                                                     0.0
                       30.1
               11.2
                                  BY MISSION SEGMENT ASCENT. ALTITUDE
                                                                               0. CT/S 0.06
 GUST NZ PEAKS FOR
                      MU VS NZ
                                                             SUM
                                                    0.30
               0.05
                      0.10
                              0.15
                                     0.20
                                            0.25
 1.3
                                 2
 1.2
 0.8
                                 2
                                        ı
 SUM
                                                     0.0
                2.5
                              20.8
TIME
  GUST NZ PEAKS FOR
                       MU
                          V5
                              NZ
                                   BY MISSION SEGMENT ASCENT.
                                     0.20
                                             0.25
                                                     0.30
                                                             SUM
        LESS
               0.05
                       0.10
                              0.15
 1.3
                                                                3
                                 2
                                         ı
 1.2
 0.8
                                 2
                                         ı
 SUM
TIME
                3.2
                       20.4
                                     25.2
                                               .7
                                                      0.0 100.6
  GUST NZ PEAKS FOR
                      MU VS NZ BY MISSION SEGMENT ASCENT
                              0.15
                                                    0.30
               0.05
                       0.10
                                     0.20
                                            0.25
                                                             SUM
 1.4
 1.3
                                 3
                                        7
                                                              10
                                12
                                       12
                                                              25
 0.8
0.7
0.6
0.5
                                                              22
                                10
                                       11
 0.4
                                                               1
                                        1
                         1
                                27
                                       31
                                               1
                                                              60
TIME
      17.7
               38.3
                             301.7 229.6
                                                     0.0
                                                         675.5
  GUST NZ PEAKS FOR
                       MU VS NZ BY MISSION SEGMENT MANUVR.
                                                                  ALTITUDE -3000 - CT/S 0.04
        LESS
                0.05
                        0.10
                               0.15
                                      0.20
                                                              SUM
  1.2
  0.8
  SUM
                                         1
                                                                1
 TIME
          • 5
                  . 8
                        3.5
                                7.1
                                       2.4
                                              0.0
                                                      0.0
                                                             14.3
```

TABLE LV- Continued

```
GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR. ALTITUDE -3000. CT/S 0.06
                     0.10
                            0.15
       LESS
             0.05
 1.2
 0.8
 SUM
                               2
                                                           3
TIME
                                    2.7
                                           0 )
        0.0
  GUST NZ PEAKS FOR
                     MU VS NZ BY MISSION SEGMENT MANUVR.
                                                             ALTITUDE -3000
              0.05
                     0.10
                            0.15
                                   0.20
                                          0.25
                                      2
 0.8
 SUM
TIME
                            11.4
                                           0.0
 GUST NZ PEAKS FOR MU VS .NZ BY MISSION SEGMENT MANUVE
       LESS
              0.05
                                         0.25
                     0.10
                            0.15
                                   0.20
                                                 0.30
 1.3
 1.2
                               2
                                      2
 0.8
 SUM
TIME
                     12.2
                            18.0
                                           0.0
                                                  0.0
  GUST NZ PEAKS FOR
                     MU VS NZ BY MISSION SEGMENT DESCRIT. ALTITUDE LESS. CT/S 0.04
                            0.15
 0.7
 0.6
 SUM
TIME
                     10.2
                           17.1
        1.9
                                   12.5
                                                        50.6
  GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCRIT.
                                                             ALTITUDE LESS
       LESS.
              0.05
                     0.10
                            0.15
                                   0.20
                                          0.25
                                                 0.30
                                                         SUM
 0.7
                               1
 0.6
SUM
TIME
        1.9
                     10.2
                            17.4
                                   13.0
```

TABLE LV - Continued

```
GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE -6000. CT/S 0.04
              0.05
                     0.10
                            0.15
                                    0.20
                                           0.25
                                                  0.30
                                                          SUM
1.3
 1.2
                                              1
                                              1
 SUM
                                3
                                                   0.0 154.8
TIME
              11.0
                     15.8
                                    66.1
                                  BY MISSION SEGMENT DESCNT. ALTITUDE -6000
 GUST NZ PEAKS FOR
                             NZ
       LESS.
              0.05
                     0.10
                             0.15
                                    0.20
                                           0.25
                                                  0.30
                                                           SUM
 1.3
                                       2
                                              1
 SUM
                                                   0.0 178.2
                                    77.7
TIME
              11.5
                             NZ BY MISSION SEGMENT DESCNT. ALTITUDE -3000. CT/S 0.04
  GUST NZ PEAKS FOR
                     MU VS
                             0.15
                                    0.20
                                           0.25
                                                  0.30
                                                           SUM
       LESS
              0.05
                      0.10
 1.2
                                       2
 0.7
                                       3
 SUM
                                                            13
TIME
                                   105.7
                                                   0.0 193.6
                                  BY MISSION SEGMENT DESCNT. ALTITUDE -3000. CT/S 0.06
                             NZ
  GUST NZ PEAKS FOR
                             0.15
                                    0.20
                                           0.25
                                                  0.30
                     0.10
       LESS
              0.05
 1.3
 1.2
 0.8
                                1
 0.6
SUM
                                                   0.0
TIME
        3.0
                             21.9
                                    43.4
                                             • 1
                                                         81.6
 GUST NZ PEAKS FOR
                             NZ BY MISSION SEGMENT DESCRIT. ALTITUDE -3000
                     MU VS
       LESS
              0.05
                     0.10
                             0.15
                                    0.20
                                           0.25
                                                  0.30
                                                           SUM
 1.2
                                       3
 0.5
                                       9
                                                            17
 SUM
TIME
        6.6
              11.1
                     23.5
                             76.0 149.1
                                            8.9
                                                   0.0 275.2
```

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0, CT/S 0.04 1.3 1.3 1.3 1.4 1.5 1.5 1.6 0.7 0.0 0.7 0.0 1.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.7				.5.1.	TAB	LE LV	- Co	ntin	ued			
1.3 1.2 0.8 0.7 0.6 0.7 0.6 5.UM 4 1 1 6 TIME .2 2.4 6.2 12.5 15.0 .4 0.0 36.6 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0, CT/S 0.06 1.4 1.5 1.2 0.7 0.6 5.UM 4 1 1 6 TIME .2 2.4 6.2 12.5 15.0 .4 0.0 36.6 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0, CT/S 0.06 1.4 1.5 1.2 0.7 0.6 5.UM 4 4 4 TIME 2.3 2.2 5.6 18.4 20.4 7.9 0.0 56.8 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 2 1 3 0.8 0.7 2 2 2 1 3 0.8 0.7 2 2 2 1 5 0.06 5.UM 1.4 1.3 1 2 2 1 5 0.6 5.UM 4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 7.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 3 1.2 1 8 6 1 16 0.7 7 8 1 1 16 0.7 7 8 1 17 0.7 7 8 1 1 16 0.7 7 8 1 17 0.7 7 8 1 17	GU5T	NZ PE	KS FOR	MU V	s NZ	BY MISS	ION SEG	MENT DE	SCNT.	ALTITUDE	0+ CT/5	0.04
1.2		LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
0.8 0.7 0.6 SUM 4 1 1 1 6 SUM 4 SUM 5					2	1			3			
O	0.8											
TIME .2 2.4 6.2 12.5 15.0 .4 0.0 36.6 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0. CT/S 0.06 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 2 2 2 0.8 0.7 0.6 5 0.6 18.4 20.4 7.9 0.0 56.8 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 4 4 1.3 2 2 2 1 2 0.8 0.8 2 2 1 3 0.8 0.9 0.10 0.15 0.20 0.25 0.30 SUM 1.4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 3 100 0.6 2 2 2 3 3 100 0.6 2 2 3 3 100 0.7 7 8 1 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2					2		1		,			
GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0. CT/S 0.06 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.2 2 2 2 1.2 0.6 0.7 0.6 SUM 4 4 4 TIME 2.3 2.2 5.6 18.4 20.4 7.9 0.0 56.8 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 2 2 2 1 3 0.8 0.7 0.6 SUM 4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 1.2 1.3 1.2 1.4 1.5 1.5 0.6 0.7 0.6 0.7 0.6 0.8 0.8 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	SUM				4	1	1		6			
LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 0.8 0.7 0.6 SUM 4 4 TIME 2.3 2.2 5.6 18.4 20.4 7.9 0.0 56.8 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 2 2 1 3 0.8 0.7 2 2 2 1 3 0.8 0.7 2 2 1 1 3 0.8 0.7 3 1.2 1 2 2 1 3 0.8 0.7 3 1.4 1.5 1 1 2 2 2 1 3 0.8 0.7 3 1 2 2 2 1 3 0.8 0.7 3 1 2 2 2 1 3 0.8 0.7 3 1 3 1 4 5 1 1 6 0.7 7 8 1 1 1 6 0.8 0.7 7 8 1 1 1 6 0.8 0.7 7 8 1 1 1 6 0.8 0.7 7 8 1 1 1 6 0.8 0.7 7 8 1 1 1 6 0.8 0.7 7 8 1 1 1 6 0.8 0.7 7 8 1 1 1 6 0.8 0.7 7 8 1 1 1 6 0.8 0.7 7 8 1 1 1 6 0.8 0.7 7 8 1 1 1 6 0.8 0.7 7 8 1 1 1 1 6 0.8 0.7 7 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TIME	•2	2.4	6.2	12.5	15.0	.4	0.0	36.6			
1.4 1.3 1.2 0.8 0.7 0.6 0.7 0.6 SUM 4 4 TIME 2.3 2.2 5.6 18.4 20.4 7.9 0.0 56.8 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.5 1.2 2 1 3 0.8 0.7 2 2 1 5 0.05 SUM 4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 2.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 3 1.2 1 8 6 1 16 0.8 0.7 7 8 1 16 0.8 0.7 7 8 1 16 0.8 0.7 7 8 1 16 0.6 0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 2 2 2 0.8 0.7 0.6	GUST	NZ PE	AKS FOR	MU V	s NZ	BY MISS	ION SEG	MENT DE	SCNT.	ALTITUDE	O+ CT/5	0.06
1.3 1.2 0.8 0.7 0.6 SUM TIME 2.3 2.2 5.6 18.4 20.4 7.9 0.0 56.8 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 2 2 1 1.2 2 1 1.2 2 1 1 2 1 1 2 1 1 2 2 1 1 3 0.8 0.7 2 2 1 1 1 1 1 1 1 1 1 1 2 1 2 2 2 1 3 0.8 0.7 7 8 1 1 1 6 0.8 0.7 7 8 1 1 1 6 0.8 0.7 7 8 1 1 1 6 0.8 0.7 0.6 SUM 1 1 1 1 1 1 2 1 2 2 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 3 1	1.4	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
0.7 0.6 5UM 4 4 4 4 TIME 2.3 2.2 5.6 18.4 20.4 7.9 0.0 56.8 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 2 2 2 1 3 0.8 0.7 2 2 1 5 0.6 SUM 4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 3 1.2 1 8 6 1 16 0.8 0.7 7 8 1 16 0.8 0.7 7 8 1 16 0.6 0.6 2 2 2 0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.5 1.6 18 2 37	1.3					2			2			
TIME 2.3 2.2 5.6 18.4 20.4 7.9 0.0 56.8 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 2 2 1 3 0.8 0.7 0.6 SUM 4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 3 1.2 1 8 6 1 16 0.8 0.7 0.6 0.7 0.6 0.7 0.6 0.7 0.6 0.7 0.7 0.8 0.7 0.8 0.7 0.8 0.7 0.8 0.7 0.8 0.7 0.8 0.7 0.8 0.7 0.8 0.7 0.8 0.7 0.8 0.7 0.8 0.7 0.8 0.7 0.8 0.7 0.8 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	0.7					2			2			
GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE 0 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 2 2 1 3 0.8 0.7 2 2 1 1 5 0.06 SUM 4 5 1 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 7.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 1 8 6 1 16 0.8 0.7 7 8 1 16 0.6 0.7 7 8 1 16 0.6 0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2						4			4			
LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 2 2 1 3 0.8 0.7 0.6 SUM 4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 3 1.2 1 8 6 1 16 0.8 0.7 7 8 1 16 0.6 0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 2 2 2 0.8 0.7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	TIME	2.3	2.2	5.6	18.4	20.4	7.9	0.0	56.8			
LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 2 2 1.2 0.8 0.7 0.6 SUM 2 2 1 5 0.6 SUM 4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 0.8 0.7 0.8 0.7 0.8 0.7 0.8 0.7 1 16 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	GUST	N7 DFA	KS FOR	MII VS	. N2	RY MISS	ION SEGM	IENT DES	SCNT.	ALTITUDE	0	
1.4 1.3 1.2 2 1.2 0.8 0.7 0.6 0.7 0.6 SUM 2 2 2 1 3 0.8 0.7 0.6 SUM 4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 1.4 1.3 1 2 3 1.2 1 8 6 1 16 0.8 0.7 7 8 1 16 0.6 2 2 2 2 0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1												
1.2		FE 33	0.05	0.10	0.15		0023	0.30				
0.8 0.7 0.6 SUM 4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 3 1.2 3 1.2 3 1.2 1 8 6 1 16 0.8 0.7 7 8 1 16 0.6 2 2 2 0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.4 1.3 1 1 1 1.4 1.2 0.8 0.7 0.6					2							
0.6 SUM 4 5 1 10 TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 7.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 3 1.2 3 1.2 3 1.2 1 8 6 1 16 0.8 0.7 7 8 1 16 0.6 2 2 2 0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.8				_							
SUM TIME 2.4 4.6 11.8 30.9 35.4 8.4 0.0 93.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 7.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 3 1.2 1 8 6 1 16 0.8 0.7 7 8 1 16 0.6 0.6 0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					2	2	1		,			
GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 3 1.2 1 8 6 1 16 0.8 0.7 7 8 1 16 0.6 2 2 2 0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 2 2 0.8 0.7 0.6					4	5	1		10			
LESS 0.05 0.10 7.15 0.20 0.25 0.30 SUM 1.4 1.3 1 2 3 1.2 1 8 6 1 16 0.8 0.7 7 8 1 16 0.6 0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 0.8 0.7 0.6	TIME	2.4	4.6	11.8	30.9	35.4	8.4	0.0	93.4			
1.4 1.3 1.2 1.8 6.1 1.6 0.8 0.7 7.8 1.1 6.6 0.5 5UM 1.16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 0.8 0.7 0.6	GUST	NZ PE	KS FOR	MU V	s NZ	BY MISS	ION SEG	MENT DE	SCNT			
1.3 1.2 1 8 6 1 16 0.8 0.7 7 8 1 16 0.6 2 2 0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 0.8 0.7 0.6	, ,	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.2					1	2			3			
0.7 0.6 0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 0.8 0.7 0.6	1.2			1	8	6	1		16			
0.5 SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 0.8 0.7 0.6					7	8	1		16			
SUM 1 16 18 2 37 TIME 14.0 35.9 62.9 192.8 300.3 35.5 0.0 641.4 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000, CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 2 0.8 0.7 0.6						2			2			
GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000, CT/S 0.04 LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1 1 2 2 2 0.8 0.7 0.6				1	16	18	2		37			
LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.4 1.3 1.2 2 2 0.8 0.7 0.6	TIME	14.0	35.9	62.9	192.8	300.3	35.5	0.0	641.4			
1.4 1.3 1.2 0.8 0.7 0.6	GUST	NZ PEA	KS FOR	MU V	5 NZ	BY MISS	ION SEG	MENT ST	EADY.	ALTITUDE	-6000+ CT/5	0.04
1.3 1.2 0.8 0.7 0.6	1 4	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
0.8 0.7 0.6	1.3											
0.7 0.6						2			2			
	0.7					2			2			
						5			5			
TIME 16.7 16.9 10.7 76.6 221.3 9.4 0.0 351.7	TIME	16.7	16.9	10.7	76.6	221.3	9.4	0.0	351.7			

TABLE LV - Continued

```
GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/5 0.06
              0.05
                                    0.20
                                           0.25
                     0.10
 1.3
1.2
0.8
0.7
0.6
 0.5
 SUM
TIME
  GUST NZ PEAKS FOR
                     MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000
       LESS
              0.05
                     0.10
                             0.15
                                    0.20
                                                          SUM
 1.3
 1.2
 0.8
 0.7
 0.6
 0.5
SUM
                                      11
  GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY+ 'ALTITUDE -3000+ CT/S 0.04
                                                          SUM
       LESS
                            0.15
                                    0.20
                                           0.25
              0.05
                     0.10
                                       1
 1.4
 1.3
                                      33
                                                           38
 0.8
                                      16
 0.7
 SUM
TIME
      11.5
                                           10.5
                                                   0.0 572.9
  GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -3000, CT/S 0.06
                                    0.20
                                                          SUM
 SUM
TIME
       9.2
               1.0
                     11.1 172.2 268.1
```

TABLE LV - Continued

```
GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -3000
        LESS.
               0.05
                      0.10
                             0.15 0.20 0.25 0.30
   1.4
                                      39
                                             3
   1.2
   0.8
   0.7
                                1
                                      16
   0.6
   0.5
                                      63
                                                          71
   SUM
  TIME
       20.7
                      13.3 293.1 691.5
                                                  0.0 1036.4
   GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE
                                                                        0. CT/S 0.06
                                          0.25 0.30
              0.05
                     0.10 0.15
                                   0.20
                                                        SUM
  1.3
  1.2
0.8
0.7
0.6
0.5
                                                          1
  SUM
                          116.3
  GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE
                                  0.20
                                         0.25
 1.3
 1.2
 0.8
 0.7
 0.6
 SUM
TIME
                     8.3 209.9 143.6
                                                0.0 378.0
 GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY
      LESS 0.05
                    0.10 0.15
                                  0.20
 1.5
 1.4
1.3
1.2
0.8
                              1 2
                                    45
                                                        50
 0.7
                                    22
                                                        28
 C.6
0.5
 5UM
                                    77
TIME 61.3 36.1 39.5 704.4 1327.7
                                        39.4
                                                0.0 2208.5
```

TABLE LV - Concluded

GUST NZ PEAKS FOR MU VS NZ

LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM

1.5
1.4
1.3
5 15 20
1.2
1 24 65 5 95
0.8
0.7
1 22 41 2 66
0.6
0.6
3 5 8
0.5
0.4
1 1
1
0.2
SUM
2 54 128 7 191

TIME 93.5 115.2 198.7 1216.9 1864.5 79.0 0.0 3567.7

TABLE LVI. GUST $n_{\mbox{\scriptsize Z}}$ PEAKS FOR AIRSPEED VERSUS $n_{\mbox{\scriptsize Z}}$ BY WEIGHT, ALTITUDE, AND MISSION SEGMENT

	0	U5T NZ	PEAKS F	O VELO	CITY VS	4.7 P	Y WEIGHT	6000	ALTI	TUDE .	-3000 •	15510N	SEGMENT	ASCENT		
	LFCS	4^	٨n	70	75	AO	A 5	90	95	100	105	110	115	120	125	SUM
1.4								3	1							
0.8								2								
0.7 0.6 0.5							1									
SIIM							1	5	ı							
1**E	2.0	7.€	2.7	2.1	<.1	7.5	1.9	5.2	4.2	4.3	4.0	2.5	• 2	•1	0.0	43.
	6	157 17 1	FAKS FO	ר אינס	CITY VS	NZ DY	. WEIGHT	6000.	ALTI	TUNF -	2006					
. 4	FEC	4 ^	40	72	75	80	95	90	95	100	105	110	115	120	125	SUM
. 2								3	1							1
. *								2								
							1	5								1
1 * 1 E	21.7	9,3	5.0	5.4	14.6	27.3	19.5	35.4	1 46.8	52.9	25.A	23.9	17.4	6.2	0.0	306.
						•	•		•				•			
			TAYS FO				WEIGHT	6000								
. 4	1 5 6 5,	4^	60	70	75	PO	45	90	95	100	105	110	115	120	125	SUM
. 2								3	1							1
							1	2								1
1.5							1	5	1							•
	24.r	14.1	10.3	6.5	1 A . R	31.4	27.7	49,1	67.M	77.A	38.8	31.4	19.5	6.9	.0	425.3
	G	15T + 7 (FAVS FO	R VELO	CITY VS	1.7 R	r WEIGHT	7000	ALTI	TUDE -	-6000 ·	ISSION	SEGMENT	ASCENT		
	LFSS	4	60	70	75	RO.	P.S	90	95	100	105	110	115	120	125	SUM
. 4									2		1					
• ?								1					3			
1.6								1		1	2		5			I,
0.0								2	2	1	3		5			1
F	4.4	4.1	1.7	1.6	1.9	4,7	4.9	11.0	9.6	9.8	5.1	3.9	. 3	.1	0.0	70.
	7,1	15 7 . 7 .	TAPS FO	R VELO	CITY VS	4/7 P	/ WEIGHT	7000.	ALTI	TUDE -	6000. M	15510N	SECHENT	DESCNT		
_	1 5 5 5	40	60	70	75	#D	95	90	95	100	105	110	115	120	125	SUM
.?											1	1		1		11
7										1	1	1	1			1
. 5										1	,	2	1	1		
111	P . 4	10.9	3.0	1.5	2.0	1.5	1.3	2.6	A.3	9.2	11.3	4.7	7.8	. 3	0.0	72.
		C 7 417 F	FAVE EA	D VELO	11V VE	1,7 114	WEIGHT	7000-	AL TT	TUPE -	6000- P	ISSION	SEGMENT	STEADY		
	۵.	15 T TZ F	FARS PT	70	75	80	RF [GM]	90	95	120	105	110	115	120	125	SUM
		41			. ,				ı	•					•	1
WF .4	(F55	41									•	?				
.4 .3 .2		41						2		4	3	·				
VF		4.1						2 4 6	1 2	?	, l 4	2				11

TABLE LVI - Continued

	LFSS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
. 3									3		1					
. Z								3		4	2	3	3	1		1
1.5								,	1	4	3	1	3			•
IIM									4		10	4	6	1		4
MF	31.9	18.8	10.6	3.6	3.9	7.4	10.6	38.1	60.8	43.1	54.5	31.6	25.4	1.3	0.0	341.
	d	1157 NZ	PEAKS FO	R VELO	CITY V5	NZ BY	WFIGHT	7000	. ALTI	TUDE -	3000 · M	15510N	SEGMENT	ASCENT		
	LFSS	40	62	70	75	80	85	90	95	100	105	110	115	120	125	SUM
.3			1		1 2	2	1 6	3	1	1 2	2	2	1			2
. A		2	4	3	5	4	4	1	5	•	5	2	1			3
.5			1	1	1 1	1										
. 4 . 2		2	6	4	10	7	12	4	12	3	1 1 1	4	3			7
MF	15.1	9.9	11.3	7.2	13.6	23.9	32.5	32.0	36.9	72.0	21.7	11.5	7.3	.6	.2	245.
		115T HZ	PEAKS FO	P VFLO	CITY VS	NZ RY	WEIGHT	7000	. ALTI	TUDE -	3000 ₽	15510N	SEGMENT	DESCNT		
. 4	l E55	40	60	70	75	90	85	90	95	100	105	110	115	120	125	SUM
. 3		1	2	1	2		1 7	1	t		2					1
. 8 . 7		1					2	3	4	2	1	_1				1
.5								1				•				
ME	14.5	17.4	12.4	8.5	? 8.4	13.0	10	4	21.5	20.5	3	1			0.0	225.
E	1747		12.4	7.07		1 7.00		18.1	2117	20.5	26.7	29.9	17.6	4.9	0.0	2274
	G	JST + Z	PEAKS FO	R VELO	CITY VS	NZ RY	WEIGHT	7000	ALT1	TUDE -	3000 · M	15510N	SEGMENT	STEADY		
. 5	LESS	40	40	70	75	PO.	#5	90	95	100	105	110	115	120	125	SUM
. 3							1				1		2			
. 8							1	2	4	9	17	14	1	2		51
. 7							1	1	î	7	7	4		1		2
. 5 IM							3	3	9	16	26	18	3	3		a
۳F	40.1	A.9	9.5	2.2	P.4	26.3	28.1	67.3	177.4	145,1	87.6	40.3	20.6	1.5	0.0	662.
	GI	JST 42 I	TEAKS FOR	P VELO	ITY V5	PZ RY	WEIGHT	7000	ALTI	TUPE -	3000					
	LF44	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
5		_					3	1	ı	1	1 3		3			14
. 7		1	3	1	4	2	14	ė	ıi	11	22	16	ž	2		96
7 . 6		3	4	3	1	4	8	5	13 1	9	13	6	1	1		7
5			-		i			1			1					;
2		4		5	12	7	25	15	26	21	40	23	6	3		19
·F	71.2	37.6	33.6	18.9	31.4	63.7	72.8	118.9	236.6	187.8	136.2	82.0	45.4	7.0	.2	1143.

TABLE LVI - Continued

	F < <	411	60	70	75	Ao	85	90	95	100	0 • M	110	115	120	125	SU
1.3				•				3	1/	•••		•••	• • •	•••	•••	•
1 • / () • P () • 7								•	1							
C. 4								3	2							
l i i	4.7	5,1	9.1	A.1	9.0	11.1	12.6	6.8	14.6	5.8	2.8	3.2	2.0	.1	0.0	96
, .	•	•	•		•••	1			174-		• • •			•		•
	GI	IIST NZ P	FAKS FO	IR VELOC	211Y V5	NZ BY	WEIGHT	700r.	ALTIT	UDE	0 · MI	SSION S	SEGMENT	DESCRIT		
	LF55	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUN
.3							,				2	1				;
• A							?				2	•	1			:
• 6							4				(1	1			11
**F	4.2	5.5	s.n	4.2	4.0	7.5	9.6	6.6	11.6	14.3	7.9	4.7	11.4	1.2	. 1	97.5
			•		•		• • • • • • • • • • • • • • • • • • • •		***-	• • • •	. •		•••	••-	•	*
	•	SUST PZ F	PEAKS FO	OR VELO	CITY VS	HZ RY	Y WEIGHT	7000•	. ALTI1	TUDE	C					
٠ ,	LFSS	40	60	70	75	HO.	45	90	95	105	105	110	115	120	125	5()4
1.4							2	3	1		2	1				
0 • B			ı				?	,	1		2		1			
0 - 6 5 - 14			1				4	,	2		4	1	1			1
IME	25.4	12.5	14.2	17.5	20.3	39.0	A7.8	65.5	76.9	49.3	30.9	24.6	20.0	2.0	•1	46R.
					•							•	•	-		
	6-1	15T NZ PE	FAKS FOI	P VELOC	ITY VS	NZ RY	MEIGHT	7000.	ALTITO	UPF 3	3000. PI	5510N 5	FGMENT	ASCENT		
	LFSS	46	60	70	75	80	A5	90	95	100	105	110	115	120	125	SUM
• 3										1						1
4 F										1						
⊔F.	0.0	2.1	2.5	1.1	1.3	1.6	1.1	1.6	1.5	4.2	1.7	-1	0.0	0.0	0.0	19.0
				Ju												
		OST NZ P			CITY VS	a-y ny					3000					
• 3	LFSS	40	40	71	75	a.c	**	90	95	100	105	110	115	120	125	SUM
1.7 1.8										1						
51111			-							1					• •	122
) * F	0.0	2.7	3.3	1.2	1.5	2.5	3.3	5.6	19.5	74.7	12.3	317	16.0	0.0	0.0	123.
	G	115T H7 D	PEAKS FO	OR VELOC	CITY VS	P7 99	r WETGHT	7000								
	LFSS	40	60	70	75	#O	P5	90	95	100	105	110	115	120	125	SUM
1.5							_				1					٠,
1.3		1	3	1	1	2	16	1	12	16	26	20	5	3		12
0.8 0.7		3	4	3	•	•	10	10	15	13	17	?	5	1		9
0.6 0.5			1	1	1	1		1	1		3	1				
0.4								•4	.,	.0	1		12			25
		4	9	5	12	7	29	26	32	30	54	28	17.6	10.2		2207.
ŞI IM	143.6	79.7	66.1	44.9		117.9										

TABLE LVI - Continued

		4. 47	PRAKS FOR	ים אבר א	CITY VS	MZ RY	Y WEIGHT	T 8000.	ALTI	ITUDE	LF55. P	*15510N	SEGMENT	DESCHT		
. 9	tree	41	• ^	71	75	••		90	95	100	105	110	115	120	125	SU
q							1									
							1									
٠.	' . :	••	1.6	1.7	.4	• 9	1.2	. 9	3.0	7.2	1.2	.3	0.0	0.0	0.0	19
	(*	PEAKS FOI	ים שר י	C117 V5	NZ MY	Y WEIGHT	7 8000,	ALTI	TUDE	LF\$5					
		31 ET 112 1 4	40 40	*0	15	90 80	85	90	95	100	105	110	115	120	125	511
,							1									
. e							1									
~ €	.7.4	9.0	٠.٠	1.7	2.6	3.8	6.0	7.6	15.5	1,4	1.6	.3	0.0	0.0	٥.0	73,
						- 04					N			******		
			PEAKS FOR		75	NZ BY	WFIGHT AS	90	95	100E -6	.6000 • MI	155104 5	SEGMENT 115	ASCENT 120	125	S∪₩
3	_F\$5	4 0	۴٦	70	כז	90	P 7	•0	97	1	10.	110	11.	1	•	
2						1		1		1						
8 7 6 5							2	1		1						,
-						1	3	2		2		1				
2	*	7.	11.	1.1	• c	A.4	14.7	14.9	23.A	11.9	10.1	2 • 2	• 2	-1	- 1	108.
			rease she			77 RY		#000·					SEGMENT			SUN
•	, Fes	41	* 2	71	75	BO.	P 5	90	95	100	105	110	115	120	125	SUM
2								2								
								3								
F	٠,٠	0.1	1.1	1.1	2.5	3.6	9.7	15.7	20.1	15.4	8.0	7.8	1.5	.3	0.0	99.
		e + 17 f	DIAKS FOR	VFLOC	117 VS	PZ AY	WEIGHT	8000.	ALTIT	TUDE -	Annn. P	15510N	SFGMENT	STEADY		
	(F e e	40	40	1,	75	an	A 5	90	95	100	105	110	115	120	125	SUM
3										,		1				
:						1	1	2	2	2	1					
7 4 5						•		1	٠							
						1	1	3	4	5	1	1	_			1
F	10,1	••	. 3		5.6	11.9	2*.5	44.0	52.6	107.1	93.4	56.3	23.4	4.6	0.0	451.
	Cit		PEARS FOR	* VFLOC	ITY V5	1.7 PV	WEIGHT	#000·	ALTI	TUDE -	6000					
	, FSS	4.1	, =	•-	75	e c	A5	90	95	100	105	110	115	120	125	SUP
3						1		1 3	2	3	1	2				1
2 p						1	3	3	2	4	•					
							1	1								
•						2	40.4	9	07.6	7		2	25.1	5.0	.1	670,
• 1	17.4		. 7 . 1	H.D	11.9	24.6	49.6	74.8	97.4	134.6	11100	66.3	600	7.0	• •	0

TABLE LVI - Continued

	LESS	40	40	70	75	80	85	90	95	100	105	110	115	120	125	SUM
• 3						1	1									
. 7				1												
4				1		1	1									
···F	7.1	P.4	7,3	6.5	12.9	9.7	4.6	9.9	12.4	8,3	3.0	3.0	.1	c.o	0.0	95.
	GL	JST + Z 1	PEAKS FOR	VELOC	ITY VS	NZ AY	WEIGHT	8000	ALT!	rupe -?	3000+ M1	15510N	SFGMENT	PANCAB		
	LF55	40	67	70	75	80	65	40	95	105	165	110	115	141		~
. 3							1	, 1		2						
. 8 . JP*							1	1		2						
٩F	•1,	.8	1.9	1 • 6	••	1.5	1.0	1.2	2.1	1.6		• 1	6		• *	١.
	6			VEL 01	/4	417 RY	PERMIT	=000.	A: T1	***DE _	2000 P		SEGMENT	resch.		
			PEAKS FOR	70	75	NZ 8Y	WEIGHT	90	95	100E =3	3000 € Mi 105	110	115	120	12 ^z	ج ن م
. 3	LFSS	40	6.0	70	77	8 ()	F 7	40	43	1		110	112	16.	1.	70*
• 2 • B								1		ı	1					
. 7 . 6								1		:	2					
wF	4.6	4.3	2.5	2.2	3.3	4.2	0.2	11.5	12.3	14.0	12.2	4,4	.5	- 1		12.
		~•.			, •			•••	•							
	G!	15T N7	PEAKS FOR	VFLOC	TITY VS	NZ PY	WEIGHT	8000.	ALTT	tune =	3000. M	155104	SECHENT	STEAT		
4.	LF55	40	40	77	75	90	P 5	90	95	100	105	110	115	120	125	, N
.3										2	6	ı				
. B . 7									1	1	1	1				
. 6 . 5									•	i	-					
1 194									1	9	7	2				1
MF	33.7	1.0	2.0	4.3	8.8	24.2	53.7	45.2	139.1	153.4	64.7	23.7	22.G	0.0	6.0	e15.
	6		DFAKS FOR	- JELO(CITY VS	NZ RY	WEIGHT	. aooo.	ALTI	TUPE -	3000					
	LF55	47	40	70	75	PO - 1	#F [(IH)	9n	95	100	105	110	115	120	125	SUM
. 4	L1 >>	•	۹٠,	,	.,	П.	. ,	•		1,717	10			•	•-	
. ?						1	?	1		'n	7	1				:
.7				1				1	1	i	2	1				
• 6 • 5				1		1	2	2	1	12	9	2				3
•4F	48.5	14.5	13.7	14.6	25.4	19.7			165.9		80.Z	31.3		. 1	0.0	805.
	-		•					•								
	Fit	57 117 1	PEAKS FOR	VELOC	1TY V5	42 114	WFIGHT	#000·	ALT[1	fure	9. W	155104	SEGMENT	STEADY		
	LF55	40	67	70	75	90	A5	90	95	100	105	110	115	120	125	5∪ M
. 3										1						
. P.									1	1						
. 6 . K									1	,						
				A.1	16.5	42.9	70.8	42.7	62.6	37.7	7.0	. F	٠.٠	0.0	• ^	221.
n£	4.4	1.7	1.A	4.1	1007		• • • • • • • • • • • • • • • • • • • •			, . .						

TABLE LVI - Concluded

	(-	-151 <i>112</i>	PFAKS F	OR VELO	CITY VS	NZ F	ly mělch	1 8000	ALTI	TUDE	o					
	[F 5 6	40	63	70	75	80	85	90	95	100	105	110	115	120	125	SUM
1.3										1						1
0.7									1	1						2
0.5										1						1
ζ,									1	3				_		4
1:115	12.5	12.8	14.7	16.4	25.4	51.4	01.1	54.4	76.5	37.6	10.2	2.1	.5	• ?	0.0	395.8
	61	UST NZ	PEAKS F	DP VELOC	CITY VS	NZ B	Y WFIGHT	8000								
	LF55	4 n	69	70	75	90	A5	90	95	100	105	110	115	120	125	SHIM
1.4								1		2 11		2				5 30
1.2						2	2	•	2	7	2	1				74
0.6				1		1	1	ì	4	2	•	•				4
C . 5				1		3	7	10	5	22	10	4				63
7 I 11 F	105.7	*1.0	44.7	40.6	67.2	171.6	205.0	250.9	370.4	370.6	211.5	100.9	48.2	5.3	• !	1974.6
		· C V 1:7 (Prats Fo	ים עבו הל	117 VS	• Z 9	Y WEIGHT	9000.	ALTII	rube	LF55, PI	15510N S	SFGMENT	DESCNT		
	Lees.	*1	43	71	75	80	A5	90	25	100	105	110	115	120	125	Siju
1.3	[,-,	•"	1		.,	o.	,			•						1
1 • 2 ^ • R 5 • M			1													1
T [** F		1.4	.,	• 2	.4	. 9	. 4	1.2	• 1	.1	•2	. 3	.6	. 3	0.0	7.7
•	-	•														
	r,ı	· CT *17 1	PEAKS FO	VFLOC	177 V5	17 9	Y WEIGHT	9000•	ALTI	HIDE	LFSS					
	FSS	4^	40	70	75	#¢	A5	90	95	100	105	110	115	120	175	SUF
1.3			1													1
SIM			1												_	1
TIVE	9.7	3.6	4.2	2.7	3.1	9.4	A.0	4.1	7.4	2.8	8.5	23.2	7.0	.6	0.0	48.6
	G	57 47	PFAKS FO	NR VELOC	114 V5	MZ 9	Y WFIGHT	9000								
	1 FSS	41	63	7)	75	•0	*5	90	95	100	105	110	115	120	125	5114
1.3			1													1
-0.8 Sim			1													1
TIME	27.9	17.4	14.3	16.4	28.0	46.0	114.3	100.6	52.4	96.3	41.A	65.2	24.1	1.5	0.0	680.7
	,	1157 1:7	PFAKS F	OR VELO	CTTY VS	117										
	(F55	40	A0	70	75	an	85	90	95	120	105	110	115	120	125	SUM
1.5											1					1
1.3		1	4	1	1	4	3 18	51	14	27	6 34	71	3	3		26 156
0.9		3	5		5	5	14	16	19	20	19		5	1		124
0.6		1	1	1	1	1	,	1	1	2		1				14
0.5					·						1					1
511M		4	10	4	12	10		41	19	52		12		4		324
TIME	302.3	141.2	137.9	108.5	177.5	336.9	514.4	559.9	c:2.1	863.8	536.6	371.5	200.0	24.0	• •	5307.6

TABLE LVII. MANEUVER n_{Z} PEAKS FOR μ VERSUS n_{Z} BY MISSION SEGMENT, ALTITUDE, AND CT/σ

4ANEUVER	NZ PE	AKS FOR	MU VS	, NZ	BY MISS	ION SEG	MENT AS	CENT .	ALTITUDE	LESS.	CT/S	0.0
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM				
1.3			1	3				4				
0.8			•	-				7				
SUM			1	3				4				
TIME	3.9	5.2	9.4	20.8	9.5	0.0	0.0	48.8				
MANEUVER	NZ PE	AKS FOR	MU V!	5 NZ	BY MISS	SION SEG	MENT AS	SCENT •	ALTITUDE	LESS		
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM	i			
1.3			1	3				4				
0.8			•	-				·				
SUM			1	3				4				
TIME	3.9	5.3	9.4	22.1	9.5	0.0	0.0	50.2				
4ANEUVER	NZ PE	AKS FOR	MU VS	, NZ	BY MISS	ION SEG	MENT AS	CENT •	ALTITUDE	-6000•	CT/5	0.04
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM				
1.3				3				L.A.				
1.2				>	3			6				
0.7		1			2			3				
0.6 SUM		1		3	5			9				
TIME	3.6	15.4	15.4	71.3		•3	0.0	163.9				
TIME	3.0	1707	17.7	1105	7107	• •	0.0	10,00				
4ANEUVER		AKS FOR	MU VS	NZ	BY MISS	ION SEG	MENT AS	CENT	ALTITUDE	-6000•	CT/S	0.0
1.3	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM				
1.3			1	4				5				
0.6								_				
SUM			1	4				5				
TIME	.5	2.3	3.3	22.6	5.1	0.0	0.0	33.8				
ANEUVER	NZ PE	AKS FOR	MU VS	, NZ	BY MISS	ION SEG	MENT AS	CENT.	ALTITUDE	-6000		
_	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM				
1.3 1.2			1	7	3							
0.8			•	•	•			11				
0.7		1			2			3				
0.6 5UM		1	1	7	5			14				
	-											
TIME	4.1	17.6	18.6	93.8	63.1	• 3	0.0	197.6				

TABLE LVII - Continued MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT. ALTITUDE -3000. CT/S 0.04 0.05 0.10 0.15 0.20 0.25 0.30 1.5 23 12 11 12 11 23 28 1 56 26 0.0 200.3 TIME MU VS NZ BY MISSION SEGMENT ASCENT. ALTITUDE -3000, CT/5 0.06 MANEUVER NZ PEAKS FOR 0.10 0.15 0.20 0.30 **SUM** 0.05 2 0.8 0.7 1 0.6 0.5 SUM 12 9 3 36.9 23.4 MU VS NZ BY MISSION SEGMENT ASCENT. ALTITUDE -3000 MANEUVER NZ PEAKS FOR SUM 0.15 0.20 0.25 0.30 LESS 0.05 0.10 1.6 1.5 1 1.3 30 17 13 25 14 11 0.6 1 35 1 68 SUM 0.0 288.0 30.1 128.0 107.4 11.2 TIME 0. CT/S 0.04 MU VS NZ BY MISSION SEGMENT ASCENT. ALTITUDE MANEUVER NZ PEAKS FOR SUM 0.25 0.20

0.0

1

2

3

47.0

0.0

0.15

2

10.4

28.8

0.10

0.05

.7

LESS

• 1

1.3

1.2 0.8 0.7 0.6

SUM

TIME

			Т	ABLE	LVII	- Co	ntin	ued			
MANEUVER	NZ PE	AKS FOR	MU V	NZ	BY MISS	ION SEGM	ENT AS	CENT .	ALTITUDE	O+ CT/	5 0.06
1.6	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.5 1.4				1				1			
1.3			2	1				3			
0.8			3	2	1			6 1			
0.6				1				1			
0.4 SUM			5	6	1			12			
TIME	1.4	2.5	13.4	20.8	14.7	• 7	0.0	53.6			
MANEUVER	NZ PE	AKS FOR	MU V	5 NZ	BY MISS	ION SEG	MENT AS	CENT .	ALTITUDE	0	
1.6	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.5				1				1			
1.3			2	2				4			
0.8 0.7			3	4	1			8			
0.6				1				1			
0.4 SUM			5	9	1			15			
TIME	1.5	3.2	20.4	49.6	25.2	.7	0.0	100.6			
MANEUVER					BY MISS						
1.6	LESS	0.05	0.10		0.20	0.25	0.30	SUM			
1.5				1	1 1 3	1		1			
1.3 1.2 0.8			4	29	16	•		49			
0.7		1	3	18	14			36 7			
0.5			1	í	•			2			
SUM		1	8	54	37	1		101			
TIME	17.7	38.3	R4.1	301.7	229.6	4.1	0.0	675.5			
MANEUVER									ALTITUDE	LESS. CT/	5 0.04
1.3	LESS	0.05	0.10		0.20	0.25	0.30	SUM			
1.2 0.8 SUM				2				2			
TIME	0.0	• 2	1.0	1.4	0.0	0.0	0.0	2.6			

			TA	ABLE	LVII	- Co	ntin	ued			
MANEUVER	NZ PE	KS FOR	MU VS	NZ	BY MISS	ION SEGI	MENT MA	NUVR•	ALTITUDE	LESS	
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.3				2				2			
0.8								•			
SUM				2				2			
TIME	0.0	•2	1.0	1.4	0.0	0.0	0.0	2.6			
MANEUVER	NZ PE	KS FOR	MU VS	NZ	BY MISS	ION SEG	MENT MA	NUVR.	ALTITUDE	-6000• (T/S 0.04
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.5				1				1			
1.3			2	i	1			4			
1.2			1					1			
0.8 SUM			3	2	1			6			
7145			4 7	3.3	1.7	0.0	0.0	11.4			
TIME	0.0	1.7	4.7	3.3	1.7	0.0	0.0	11.4			
MANEUVER	NZ PE	KS FOR	MU VS	NZ	BY MISS	ION SEG	MENT MA	NUVR.	ALTITUDE	-6000 • (T/S 0.06
1000.00	LE55	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
0.8 0.7		1						1			
0.6		•						•			
SUM		1						1			
TIME	0.0	1.8	•2	0.0	0.0	0.0	0.0	2.0			
MANEUVER	NZ PE	KS FOR	MU VS	NZ	BY MISS	ION SEG	MENT MA	NUVR.	ALTITUDE	-6000	
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.5								-			
1.3			2	1	1			1			
1.2			1					1			
0.8		1						1			
0.6			_	_				_			
SUM		1	3	2	1			7			
TIME	0.0	3.5	4.9	3.3	1.7	0.0	0.0	13.4			
MANEUVER	NZ PE	KS FOR	MU VS	NZ	BY MISS	ION SEG	MENT MA	NUVR .	ALTITUDE	-3000 • (T/S 0.04
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.5 1.4			1		1			2			
1.3					ž			2			
1.2 0.8		1	2	6				9			
0.7											
0.6 0.5				1				1			
0.4				•				_			
SUM		1	3	8	3			15			
TIME	.5	.8	3.5	7.1	2.4	0.0	0.0	14.3			

MANEUVER NZ PEAKS FOR NZ BY MISSION SEGMENT MANUVR. ALTITUDE -3000. CT/S 0.06 MU VS LESS 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1.3 1.2 2 2 1 3 SUM 2 1 3 2 TIME 2.3 2.7 0.0 0.0 0.0 MANEUVER NZ PEAKS FOR NZ BY MISSION SEGMENT MANUVR. ALTITUDE -3000 0.05 0.10 0.20 SUM 2 1.4 17 1.3 3 3 0.8 0.7 1 1 0.5 1 3 11 5 23 SUM TIME ALTITUDE 0. CT/5 0.04 MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR. 0.10 0.15 0.20 SUM LESS 0.05 1.4 1.3 1.2 0.8 0.7 1 2 2 .9 • 2 0.0 0.0 TIME 0.0 0.0 0.0 NZ BY MISSION SEGMENT MANUVR. ALTITUDE 0. CT/S 0.06 MANEUVER NZ PEAKS FOR MU VS 0.05 0.10 LESS 0.15 0.20 0.25 0.30 SUM 0.8 0.7 2 2 0.6 2 2 SUM TIME 0.0 0.0 • 3 1.0 0.0 0.0 0.0 1.2 MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR. ALTITUDE

0.0

0.0

SUM

2.4

0.10

. 5

1.3

0.7

0.6 0.5 SUM

TIME

0.0

0.0

0.15

2

4

0.0

1.9

TABLE LVII - Continued MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR 20 2 3 36 MANETHER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE LESS. CT/S 0.04 0.10 0.15 0.20 0.30 SUM 1.3 1.2 0.8 2 SUM 1 TIME 17.1 10.2 12.5 50.6 MU VS NZ BY MISSION SEGMENT DESCRIT. ALTITUDE LESS MANEUVER NZ PEAKS FOR 0.10 0.15 0.20 1.4 1.3 TIME 17.4 13.0 0.0 51.6 MANFUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE -6000. CT/S 0.04 0.10 LESS 0.05 0.15 0.20 0.25 SUM 0.30 1.4 1.3 0.8 0.7 0.6 TIME 2.7 11.0 0.0 154.8 MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT. ALTITUDE -6000. CT/S 0.06 LESS 0.05 0.10 0.15 0.20 0.8 0.7 1 SUM 1 TIME . 5 .6 10.2 11.6 • 3 0.0 23.4

MANELIVER	NZ PF	AKS FOR	MU VS	N2	BY MISS	ION SEGI	MENT DF	SCNT.	ALTITUDE	-6000	
- ALCOVER	-										
1	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.4								,			
1.3			_	1	_			1			
1.2			2	8	5			15			
0.8								-			
0.7				4	2			6			
0.6					_						
SUM			2	13	7			22			
TIME	3.1	11.5	16.4	61.6	77.7	8.0	0.0	178.2			
MANEUVER	NZ PE	AKS FOR	MU VS	NZ	BY MISS	ION SEG	MENT DE	SCNT.	ALTITUDE	-3000+ CT/	5 0.04
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.6											
1.5				1				1			
1.4				-							
1.3			2	3	3			8			
1.2			2	27	12			41			
0.8				_							•
0.7			1	2	4			7			
0.6			•	2	·			2			
0.5				_				_			
SUM			5	35	19			59			
TIME	3.5	7.2	14.2	54.1	105.7	8.8	0.0	193.6			
MANEUVER	NZ PE	AKS FOR	MU VS	N2 0 • 15	BY MISS 0.20	10N SEGN	1ENT DE	SCNT.	ALTITUDE	-3000 • CT/	5 0.06
1.3								55/1			
1.2				5	9			14			
0.8				-	-			• •			
0.7				1	2			3			
0.6				•	ī			1			
0.5					•			•			
SUM				6	12			18			
TIME	3.0	3.8	9.3	21.9	43.4	• 1	0.0	81.6			
MANEUVER	NZ PE	AKS FOR	MU VS	NZ	BY MISS	ION SEGI	MENT DE	SCNT.	ALTITUDE	-3000	
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.6											
1.5				1				1			
1.4											
1.3			2	3	3			8			
1.2			2	32	21			55			
0.8											
0.7			1	3	6			10			
0.6			-	2	1			3			
0.5				_	•			,			
SUM			5	41	31			77			
TIME	6.6	11.1	23.5	76.0	149.1	8.9	0.0	275.2			

				ΓABL	E LVI	I - C	onti	nued		_	
MANEUVER	NZ PE	AKS FOR	MU VS	NZ	BY MISS	ION SEGI	ENT DE	SCNT.	ALTITUDE	0. CT/S	0.04
• •	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.4 1.3				1				1			
1.2		1		3	3	1		8			
0.8					2			2			
0.6					ī			ī			
0.5 SUM		1		4	6	1		12			
		_				•		-			
TIME	• 2	2.4	6.2	12.5	15.0	.4	0.0	36.6			
MANEUVER	NZ PE	KS FOR	MU VS	NZ	BY MISS	ION SEGN	ENT DE	SCNT.	ALTITUDE	0. CT/S	0.06
•	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.4 1.3					1			1			
1.2			3	3	ž			8			
0.8					_						
0.7 0.6				2	3	1		4			
0.5				ī	•	•		ī			
0.4				_				-			
SUM			3	6	7	2		18			
TIME	2.3	2.2	5.6	18.4	20.4	7.9	0.0	56.8			
MANEUVER	NZ PE	AKS FOR	MU VS	NZ	BY MISS	ION SEGI	MENT DE	SCNT.	ALTITUDE	0	
_	LZSS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.4 1.3				1	1			2			
1.2		1	3	6	5	1		16			
0.8						-		-			
0.7				•	5	1		6			
0.5				2	2	1		5 1			
0.4				•				•			
SUM		1	3	10	13	3		30			
TIME	2.4	4.6	11.8	30.9	35.4	8.4	0.0	93.4			
MANEUVER	NZ PE	AKS FOR	MU VS	NZ	BY MISS	ION SEG	MENT DE	SCNT .	ALTITUDE	3000 · CT/S	0.06
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.4 1.3				1				•			
1.2		1	1	i				1			
0 . 8 SUM		1	1	2							
TIME	0.0	_	_		19.2	0.4	0.0	35.7			
										2000	
HANGUVER									ALTITUDE	3000	
1.4	LE35	0.05	0.10	0.15	0.20	0.25	0.30	SUM			
1.3				1				1			
1.2		1	1	1				3			
0 . B SUM		1	1	2				4			
TIME	0.0	.4	1.0	5.9	20.9	9.4	0.0	37.7			

TABLE LVII - Continued MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT 0.05 0.15 LESS 0.10 0.20 0.25 0.30 SUM 1.6 1.5 1 1 1.3 1 48 0.8 1 13 22 0.6 0.5 0.4 136 12 68 51 3 62.9 192.8 300.3 TIME 35.9 35.5 0.0 641.4 MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE LESS. CT/S 0.04 0.10 0.20 0.25 0.30 SUM 1.3 1.2 0.8 SUM ı TIME 39.3 0.0 0.0 137.8 18.8 8.6 MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE LESS LESS. 0.05 0.10 0.15 0.25 0.20 0.30 SUM 1.3 1.2 1 SUM 1 TIME 18.8 65.0 0.0 152.4 MANEUVER IZ PEAKS FOR NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.04 MU VS 0.05 LESS. 0.10 0.15 0.20 0.25 0.30 SUM 1.3 1 0.8 1 3 0.6 SUM 1 TIME 16.7 10.7 221.3 0.0 351.7 MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000. CT/S 0.06 LESS. 0.05 0.10 0.15 0.20 SUM 1.5 1.4 1.2 0.8 5 13 0.6 0.5 SUM 14 12 26 TIME 57.5 158.7 0.0 225.1 0.0 .6

TABLE LVII - Continued MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -6000 LESS 0.05 0.10 0.15 0.20 0.25 SUM 1.4 1.3 7 13 0.8 17 8 SUM 16 34 TIME 17.5 11.4 134.1 380.0 0.0 576.8 MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -3000. CT/S 0.04 LESS 0.05 0.15 1.5 9 17 4 15 SUM 13 28 TIME 11.5 2.3 120.9 423.4 10.5 0.0 572.9 MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -3000. CT/S 0.06 LESS 0.05 0.10 0.20 1.3 1.2 0.8 1 0.7 0.6 5UM 2 3 TIME 1.0 11.1 172.2 268.1 0.0 463.5 MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY. ALTITUDE -3000 LESS 0.05 0.10 0.15 0.20 SUM 1.5 9 10 19 0.5 0.5 4 5 9 SUM 16 15 31 TIME 20.7 13.3 293.1 691.5 12.3 0.0 1036.4

TABLE LVII - Continued

2 1.7 PEAKS FOR S 0.05	MU V5 N2 1.7 93.7 MU V5 N2 0.10 0.15 2 1.3 6.6 116.3	0.20 44.3 BY MISS 0.20 4	0.25	0.30 0.0 MENT ST 0.30	SUM 1 1 2 142.6				
2 1.7 PEAKS FOR S 0.05	1 1 2 1.7 93.7 MU V5 N2 0.10 0.15 2 1 3	44.3 BY MISS 0.20 4	0.0 ION SEG 0.25	0.0 MENT ST 0.30	1 2 142.6 EADY. SUM 6 1	ALTITUDE	0.	CT/5	0.00
PEAKS FOR S 0.05	1 2 1.7 93.7 MU V5 N2 0.10 0.15 2 1 3	44.3 BY MISS 0.20 4	ION SEG 0.25	MENT 5T 0.30	1 2 142.6 EADY • SUM 6 1	ALTITUDE	0.	CT/5	U.0
PEAKS FOR S 0.05	2 1.7 93.7 MU V5 N2 0.10 0.15 2	44.3 BY MISS 0.20 4	ION SEG 0.25	MENT 5T 0.30	2 142.6 EADY• SUM 6 1	ALTITUDE	0,	CT/5	0.0
PEAKS FOR S 0.05	1.7 93.7 MU V5 N2 0.10 0.15 2	44.3 BY MISS 0.20 4	ION SEG 0.25	MENT 5T 0.30	142.6 EADY+ SUM 6 1	ALTITUDE	0.	CT/5	0.00
PEAKS FOR S 0.05	1.7 93.7 MU V5 N2 0.10 0.15 2	44.3 BY MISS 0.20 4	ION SEG 0.25	MENT 5T 0.30	142.6 EADY+ SUM 6 1	ALTITUDE	0.	CT/5	0.06
PEAKS FOR S 0.05	MU V5 N2 0.10 0.15 2 1	BY MISS 0.20 4	ION SEG 0.25	MENT 5T 0.30	EADY+ SUM 6 1 7	ALTITUDE	0,	CT/5	0.00
8 2.6	0.10 0.15 2 1	0.20	0.25	0.30	5UM 6 1 7	ALTITUDE	0.	CT/\$	0.08
8 2.6	2 1 3	4			6 1 7				
	1	4	6.7	0.0	1				
	1	4	6.7	0.0	1				
	3		6.7	0.0	7				
			6.7	0.0					
	6.6 116.3	99.3	6.7	0.0	235.3				
05.440.500									
PEAKS FOR	MU VS NZ	BY MISS	ION SEG	MENT ST	EADY.	ALTITUDE	0		
5 0.05	0.10 0.15	0.20	0.25	0.30	SUM				
					7				
	3	4							
	2				2				
	5	4			9				
1 4.3	8.3 209.9	143.6	6.7	0.0	378.0				
PEAKS FOR	MU VS NZ	BY MISS	ION SEG	MENT ST	EADY				
5 0.05	0.10 0.15	0.20	0.25	0.30	SUM				
	,								
	1	1			1				
, 1	20	1			1				
	20				40				
					28				
	1	1			3				
1	10	35							
			20.4	, .					
3 36 · I	39.5 /04.4	1321.1	59.4	11.0	2208.5				
	PEAKS FOR S 0.05	PEAKS FOR MU VS NZ S 0.05 0.10 0.15 1 20 15 2 1	PEAKS FOR MU VS NZ BY MISS 5 0.05 0.10 0.15 0.20 1 1 1 1 20 19 15 13 2 1 1 1 1 39 35	PEAKS FOR MU VS NZ BY MISSION SEG S 0.05 0.10 0.15 0.20 0.25 1 1 1 1 20 19 15 13 2 1 1 39 35	PEAKS FOR MU VS NZ BY MISSION SEGMENT ST S 0.05 0.10 0.15 0.20 0.25 0.30 1	PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY 5 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1 1 1 1 1 1 20 19 40 15 13 28 2 1 3 1 1	PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY 1	PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY S 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1	PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY S 0.05 0.10 0.15 0.20 0.25 0.30 SUM 1

TABLE LVIII. MANEUVER n_{z} PEAKS FOR AIRSPEED VERSUS n_{z} BY WEIGHT, ALTITUDE, AND MISSION SEGMENT

	MAFFIN	FP 1:7	PEAKS FO	9 VELO	117 VS	NZ A	Y WEIGHT	6000.	ALTT	TUDE -	6000- =	15510N	SEGMENT	ASCENT		
	F55	4(40	70	75	RO.	R5	90	95	100	105	110	115	120	125	SUA
. 3	1733	-1	7.7	,	1	- (1	.,	417	17	1	100	110	117	110	11.7	10"
. A																
#F	. 7	.4	1.4	• ?	1.0	7.1	2.6	1.9	.4	• 1	.3	0.0	0.0	0.0	0.0	11
	MANEL !	FP "7	PEAKS FO	P VFLO	CITY VS	PZ R	Y WEIGHT	6000.	ALTI	TUDE .	6000.	155100	SEGMENT	DESCHI		
	[F 4 4	4"	40	77	75	80	45	90	95	100	105	110	115	120	125	SU
2													1			
													1			
**\$	• 3	. 1	• R	• 1	1.3	4.2	1.5	•1	.1	.9	0.0	1.3	1.4	.6	0.0	13
	MANFUV	FP N2 1	TEAKS FOR	VELOC	ITY VS	M7 RY	WEIGHT	6000.	ALTIT	UDE -6	000					
	LF55	40	60	70	75	80	R5	90	95	100	105	110	115	120	125	SU⊭
2					1								1			
8					1								1			
Æ	1.9	4.6	3.2	• 4	2.3	6.3	4.0	2.0	1.1	6.4	4.2	2.1	1.4	•6	0.0	40.
	MANEUV	FP MZ F	PEAKS FOR	VELOC	:11Y V5	NZ BY	WEIGHT	6000.	ALTIT	UPF =3	inon. PI	SSION 1	SEGMENT	ASCENT		
	1 FSS	47	60	70	75	80	85	90	95	100	105	110	115	120	125	5 U'4
3														1		
2							1	3	1	2						
, 7 , 6								2	1	3				,		
4F	2.0	2.5	2.2	2.1	5.1	7.5	1	5.2	4.2	4.3	4.0	2.5	•2	.1	0.0	43.
		••		•••	•				•••				•	•		•
	MANFILV	P "Z F	FAYS FOR	VELOC	ITY VS	N7 BY	WEIGHT	6000.	ALTIT	UDF -3	ingo. MI	SSION S	SEGMENT	MANUVR		
, ,	L F < 5	47	40	70	75	RO	45	90	95	100	105	110	115	120	125	SUM
3			1						1							
, 2 , A	,		1		1		,									
7					1											
4			_				_	1	-5							
·M	3		2	1	?		?	1	1					• •		1
Ε	• •	•1	•2	٠,	. 3	.1	.3	. 6	• 3	•2	•1	0.0	0.0	0.0	0.0	3.
		P 117 P			ITY VS	MŽ NA	WFIGHT	6000•	ALTIT		000• * I	55104 5	FGMENT	DESCNT		
4	LESS	40	An .	70	75	RO.	#5	90	95	Tou	105	110	115	120	125	SUM
3			1	1	1		1	2								1
8		1				1				1						:
6		1	1	2	1	1	1	2		1						10
,,																

	MAMPINA	E "7	PEAKS FOR	VELOC	114 VS	47 9Y	WEIGHT	6000.	ALTT	rune -	3000					
	LFSS	4"	62	7:)	75	90	••	90	95	100	105	110	115	120	125	5U*
.4			1											1		
.4	3		2	1	2		4	5	1	2				•		2
,		1				1		2	1	4						
5					1			1								
	•	1	,	,	3	1	4	8	3	6				1		3
	21.7		5.0	5.4	14.0	22.3	10.5	35.8	45.9	52.9	25.8	23.9	17.4	6.2	0.0	376.
			TAKS FOR			.z av	WE IGHT	6000.	ALTIT	UDE	0. PI	SSION S	SFGMENT	MANLVR		
							## 1/3m1	90	35	100	105	110	115	120	125	SUM
۰	ree,	4."	*^	70	75	90	45	90	45	100	105	110	113	12.5	1,,	
7				1												
				1												
٠ŧ	• "	• •	• 4	•1	•4	•1	•1	1.3	•2	0.0	0.0	0.0	0.0	0.0	0.0	3.
	MANEUVE	PNZ	PEAKS FOR	VELOC	17Y V5	NZ BY	WEIGHT	6000.	ALTIT	UDE	0. #1		SFGMENT			
	LESS	40	60	70	75	80	e 5	90	95	100	105	110	115	120	125	SUM
.3									1		1				1	
. 8									•							
.2						1									1	
					_	1			1		1					
νE	0.0	0.0	0.0	0.0	•7	1.2	1.6	1.2	1.8	1.1	.7	•1	0.0	•1	•0	
	MANELINI		PEAKS FOR	VELOC	117 VS	NZ BY	WFIGHT	6000.	ALTI	TUDE	0					
	LFSS	40	60	70	75	90	95	90	95	100	105	110	115	120	125	SUM
••	(+33	-0	0.7		.,	40	.,,		• • •		1	•••		•••	•••	30.00
.2									1		•			•	1	
.7				1		1										
				1		1			1		1				1	
۰Ę	.4	.4	.7	.3	1.7	2.4	4.2	10.9	19.2	16.3	5.4	1.0	.7	•1	•0	63.
	MANERIN	EB 112	PEAKS FO	D VELO	CITY VS	NZ B	WEIGHT	6000								
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SU
1.5			1	,							1			1		
1.3	3		2	i	,		4	5	2	2	•		1	•	1	
.7		I		1	1	2		2	1	•						
0.5					1			1								
0.4 5UM	,	1	3	•	4	2	4	•	4	6	1		1	1	1	
l w E	25.0	14.1	10.3	6.5	18.8	31.4	27.7	49.1	67.8	77.8	38.6	31.4	19.5	6.9	.0	425
	MANEUV	FP 117	PEATS FO	R VELO	CITY VS	NZ B	Y WF16H1	7000•	ALTI	TUDE	LFSS. N	155104	SEGMENT	ASCENT		
	LESS	40	60	70	75	80	.5	90	95	100	105	110	115	120	125	SU
1.3																
50.4						•										
0.4 504	2.2	2.5		1.5	2.7	7.1	.7	2.8	2.1	1.3	0.0	0.0	0.0	0.0	0.0	17

	1 555	40	PEAKS FOR	70	75	#IZ RY	WEIGHT	7000. 90	ALT11	100	105	110	SFGMENT 115	120	125	SUM
1.4	[- 7 - 7	**11	n.,	,,	, ,	n,	1	70	•,,	1.1.1	102		117	•••		30~
1.2																
	2.0	2.0					1	1.6	5.8	1 2	р		.1	0.0	0.0	23.
Int	2.9	3.9	1.5	.6	1.4	. 8	2.6	1 6 17	3.0	1.2	• 9	.5	••	0.0	0.0	٠,,
	#157,EV	.1 = 1.7	TEAKS FOR	VELOC	ITTY VS	+ Z - RY	WFIGHT	7000	ALT]	TUDF	LFSS. M	155104	SEGMENT	STEADY		
	FCC	4 ^	60	77	75	9.0	85	90	95	100	105	110	115	120	125	SUM
1.3								1								
`• ₽								1								
11.5	3.9	. ^	• 1	1.1	2.1	7.7	, , •	25.1	8.5	11.3	6.3	2 • 1	0.0	0.r	^•^	77.
	1-41 FT	.FF . 7	PEAKS FOR	, AETUC	.17Y V5	*17 RY	#FIGHT	7000.	ALTI'	TUDE	LF53					
. 4	* < <	4.	40	73	75	80	A 5	90	95	100	105	11^	115	120	125	5U*
. 7						1	1	1								
a M						1	t	1								
. 45	15.0	7.0	2.2	3.2	6.2	4.6	10.8	29.7	16.4	13.8	7.2	2.6	. 1	0.0	0.0	118.
	•		•		•											
	441, 1	F4 "7 1	PEAKS FOR	VFLOC	17Y V5	17 AY	WEIGHT	7000+	ALTIT	tile -#	ngn • •1	55104	SECHENT	ACCEPIT		
	ric	40	60	77	75	AC	85	3.	34	122	1 75	111	1:4	127	125	\$1.9
. ?								2	1	2						
.7									1				1			
								?	7	2			1			
''F	e . !	4.3	3.7	1.6	1.9	5.7	4.9	11.7	3.6	A . A	5.1	1.9	. 3	• 1	0.0	70.0
	PACE U.	/FF + 7 .	PFAKS FOR	VELOC	try vs	NZ BY	wF]GHT	7000.	AL TÎ T	Ure -e	oon. Mi	55104 5	SEGMENT	MANULE		
	ret	4'	4.2	73	75	B C	85	90	95	111	106	110	115	120	124	51.4
							1									
. 2		1	1	1												1
. 2 . A		1	_1	1			1									4
TUE	7.5	.7	.4	•2	• ^	•1	• 1	•1	• 1	• 0	•2	• 1	~•*	2 6	^.0	2.1
		F - 7 1	PEARS FOR	VFLOC	TY VS	17 NY	METGHT	7000•	AL *1*	UPF -	one. Mi	1510% 6	SEGME AT	C.E.SCAT		
	MATEL V	•						90	3 5	100	105	It?	1 *	120	125	P3. 14
	P. S. E.	40	+ "	7.	75	RC	Ø E	41								
.3			**	7^	75	RC	4.	41			1	1				
.2		40	**	7^	75	R.C.		4,	1	1	1	1				
.7		40	**	70	75	RC	9.	4.	1	1	1	1				
.7		1	3.0	1.5	75 2•°		1.3	2 • 4		1	1	1	7,0	. 3	0.1	72.1
.7	g.cc	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3.0	1.5	2•^	1.5	1.3	2.4	1 p, 1	1	111.3	1			0.1	72+1
1.3 1.2 .7 7.6 	4°c	1 1 1r.9 FE7	3.C PFAKS FOR	1.5 VELOC	2•^	1.5	1.3	2.4	1 p, 1	1 9+2 UCF =6	1 1'•3 :npn• *!	1	SEGMENT.	STEACY	0.0	72+1 5UM
1.3 1.2 .7 7.6 	# . F	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3.0	1.5 VELOC	2•°	1.5 .7 9v	1.3 MFIGHT	2.6 7000.	1 p. 3 ALT[7	1 9+2 UCF =6	1 1'•3 :npn• *!	1 7 55109 5	SEGMENT.	STEACY		¢∪»
1.3 1.2 .7 1.6 5. w	4°c	1 1 1r.9 FE7	3.C PFAKS FOR	1.5 VELOC	2•°	1.5 .7 9v	1.3 MFIGHT	2.6 7000.	1 p. 3 ALT[7	1 9.2 UDF =6 100	1 1'•3 :npn• *!	1 7 55109 5	FEGMENT	STEACY		درس.
.7 .6 .7	# . F	1 1 1r.9 FE7	3.C PFAKS FOR	1.5 VELOC	2•°	1.5 .7 9v	1.3 MFIGHT	2.6 7000. 90	1 p. 3 ALT[7	1 9.2 UDF -6 100	1 1*•3 	1 7 55109 5	FEGMENT	STEACY		\$UM

					-							-				
	MANFU	VFP MZ	PEAKS FOR	VFLO	11Y V5	NZ R	Y WEIGHT	7000	ALT1	TUDE -	6000					
1.5	LFSS	41	6 7	71	75	80	A5	90	95	100	105	110	115	120	125	SUM
1.4			1	1			1									
1.2 C.A	1	2	·					5	ι	3	1	1				1
n.7								2	2	2	1		1			
C, 1 - M	1	2	1	1			;	7	3	5	2	i	1			5
1 ** F	31.9	18.1	10.6	3.5	3.9	7.4	10.4	34.1	A0.8	43.1	54.5	31.6	25.4	1.3	0.0	341.
	MA* FILE	VFR 417	PEAKS FOR	VELOC	11Y V5	+ Z - A	Y WEIGHT	7000	ALTI	TUDE -	3000 · M	155104	SEGMENT	ASCENT		
	FEG	40	60	77	75	ρn	45	90	95	100	105	110	115	120	125	SUM
.5									1 1 1			2				
. 2		?	2		3		5	3	3	1	2	ī	5			2
. 7			4	1	,	4 2	6	11	9	1	3	1				5 1
		1			,	2	•	•	1			•				•
) . 4 ;:=85		1	A	t	14	6	14	16	15	2	5	5	5			9
	15,1	9.7	11.3	7.2	13.6	23.9	37.5	32.0	36.9	22.0	21.7	11.5	7.3	,6	•5	245.
	MANEUN	FR NZ I	PEAKS FOR	VELOC	1TY V5	42 B1	WEIGHT	7000+	ALTI	TUDE -:	3000 • M1	15510N :	SFGMENT	MANUVR		
	LESS	40	60	70	75	80	45	90	95	100	105	110	115	120	125	SUM
. 2		1		3				2				1				7
A 1		1		3				2				1				7
wĘ	1.5	1.4	1.4	1.0	.0	.5	. 8	1.5	. 8	.1	.1	.3	0.0	0.0	0.0	10.1
	MANFU	EP NZ I	PEAKS FOR	VELOC	ITY VS	NZ BY	WEIGHT	7000,	ALTI	TUDE -	3000 • MI	ISSION S	SFGMENT	DESCNT		
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
. 5									1							1
. 4		1 2	1	1	1	1	_		1	1		2				1 7 13
2		2	4		6	6	3	•	2	1	1	'				9
.7			1			1	2	3		1	1					5
. 5 HIM		4	6	1	7	9	7	11	4	3	2	2				56
ME	14.5	17.4	12.4	8.5	8.4	13.0	11.4	16.1	21.5	20.5	26.7	29.9	17.6	4.9	0.0	225.0
		ED N7 I	PEAKS FOR	VELOC	TTY VS	NZ RY	WEIGHT	7000.	ALTI	TUDE -	3000 • MI	15510N :	SFGMENT	STEADY		
	MANEU											110	115	120	125	SUM
, z	LESS	40	60	70	75	80	85	90	95	100	105	110		120	123	40.
. 5			60	70		60 1	#5	90	95	100	105	110		120	125	1
.4			40	70	75 1 2		A5	90	95	100	103	1	117	120	123	1
.5	LESS		A0	70	1	1	85 3 1						•	120	123	1 15 14
1 6 5 1 6 5 1 6 5 1 6 5 1 6 6 5 1 6 6 5 1 6 6 6 5 1 M	LE55 2		40	70	1	1 4	,		2	-	2	1	•••	120	123	1 19 14 1

TABLE LVIII - Continued

F	4.2	5.5	5.0	4.2	4.0	7.5	9.6	6.6	11.6	14.3	7.9	4.7	11.4	1.2	.1	97.6
5 4		1	5		5	5	1	3		2	5	2	- 1	1		31
7					1	1	1	1		1	3	1	1	1		5
2		1	5		•	2		1			2	1				16
4	LE55	40	60	70	75	60	A5	90	95	100	105	110	115	120	175	SUM
	MANEUV	FR NZ	PEAKS FO	R VELOC	ITY VS	NZ BY	WEIGHT	7000.	ALTI	TUDE	0 · MI	SSION	SFGMENT	DFSCNT		
-	•		•-	••	•			-								
;M 4E	1	0.0	.3	1	.8	.5	1.1	.9	.5	.2	0.0	0.0	0.0	0.0	0.0	1 5.
6						1										
2 A 7	1			1			3	2 1								
. 3			-		1				-	-		•				
	LFSS	40 40	PEAKS FO	70 70	75	NZ PI	RF IGHT	7000.	95	TOU	105	110	115	MANUVR 120	125	SUM
	Maner	FD 417	00445 6-	0 Vet 6		N7 6-	r WFIGHT	7000	4. • .	ZUDE.		155.00	Secure-	MASHINA		
4E	6.2	5.3	9.1	8.1	9.0	11.1	12.6	6.8	14.6	5.8	2.8	3.2	. 2.0	.1	0.0	96.
j#		2	1	ı	•	1		2						1		1
.6				1	1	1										
. 2 . A		2	1	_		_		2						1		
3					1											
. 6	LF55	40	60	70	75	RO	85	90	95	100	105	110	115	120	125	SUN
	MANFUV	FR NZ	PEAKS FO	D VELO	CITY VS	MZ B	Y WEIGHT	7000	ALTI	TUDE	0 · M	15510N	SEGMENT	ASCENT		
				1459		_	·			.,			. •	•	•	-
ME.	3 71.2	8 37.6	14 33,6	18.9	31.4	63.7	25 72.A	31	236.6	187.8	11	10 R2.0	45.4	7.0	. 2	1143,
5	_	1				1										
• 8 • 7 • 6	1		7	1	8	6	13	14	9	7	6	2				1
. 3	2	1 5	1 6	3	11	10	A	13	2	1	5	2 5				1
•6		1				1			2							
	LFSS	40	60	70	75	80	95	90	95	100	105	110	115	120	125	SUA

TABLE LVIII - Continued

		4-11	A C	7 ~	7 E	a C	9.5	9.7	9.5	100	1 15	110	115	120	125	SII
	·				1											
					1			1								
1.6			•		į.	2		i	t		,	?		1		?
				7	1 2	3 2	4	1		1	3	1	1	1		1
. 5					i	•	1	•		•			-			
Þ	1	•	•		10	7	ĸ	A	1	?	5	3	1	2		5
115	25.0	12.	14.7	17.5	20.3	33.0	67.A	65.5	76.7	49.3	30,9	24.6	20.0	2.0	. 1	448.
	P1.1	.re 1,7	DF AF S. F	ר עניַקן	CITY VS	1 2 n	* AFTCHT	7000	ALTI	TUDE	3000 · M	155104	SEGMENT	ASCENT		
	5	• ^	47	, ,	75	A C	45	90	95	100	105	119	115	120	125	م∪ب
. 3										1	1					
.,								1		1						
4.								ı		2	1					
.,6		2.1		1 • !	1.3	1.8	1.1	1.6	1.5	4.2	1.7	•1	2.0	0.0	0.0	19.
			~ 1 40 5 5	nc .r n	/1*v = 5	, , a	V RETGHT	7000.	A: T1	TUPF	3000 h	1551AN	SEGMENT	DESCRI		
	rre.	40	12.7	•	75	ar	85 1041	90	95	100	105	110	115	120	125	SU₩
٠.		4.			(7		-"	•			10,	110	117	120	127	10.
. 2		1	1					1	1	1						
• •		1	!					1	1	1						
***		• *	• 6	• 1	-1	• *	1.^	2.8	3.3	2.1	•7	10.8	12.0	0.0	0.0	35.
	SEF	,r = • •	01 4+5 F	ים גרניי	1177 VS	+ 7 a	Y AF1GHT	7000,	AL T I	TIPE	3000					
	e e c	4		• •	75	a n	45	91	35	120	105	110	115	120	125	5UN
. 1									1							
		1	1					1		?	1					
,								1		1						
٠٢	6.6	;	1					2	1	3	12.3	31.2	16.0	0.0	0.0	123.
••	^•′	7.7	٦.3	1.2	1.5	7.5	3.3	5.6	19.5	24.7	17.5	11.07	10.0			1630
	MANE	VER MZ	PEAKS F	DP VELOC	ITY VS	NZ P	WEIGHT	7000								
. 6	LFEE	40	40	7 0	75	A C	A5	90	95	1 20	105	110	115	120	125	5112
4		1			1	1	1		2							:
. 3	4	i 11	13	3	3 3	1 1 3	1	1 25	3	11	9	? 8	,	1		137
	1		-	3	٩	9	17	1.8	11	11	10	3	1	1		101
• >		1			к 1	5 1	4		i	1		1	1			2
. 4	r	14	22	A	34	30	3.7	49	27	24	19	14	4	2		294
a F	143,4	78.7	64.1	44.9	43.5	117.3	165.8	259.3	411 . A	319.9	244.4	174.0	107.6	19.2	. 3	2277.
		. 0 7	Dr. 4 4 6 . 5 .										SEGMENT			
															12K	51,00
. 1	FELL	4,7	£1	7 7	75	Rn	A5 1	ďυ	35	100	105	110	115	12c	17.	
. ? . A			1				1									;
			1				1									

TABLE LVIII - Continued

	MA. FUV	1 b 2.5 c	PEAKS FOR	VELOC	TITY VS	. FZ NY	Y MEIGHT	r anno.	ALTIT	HILE	1 : 55. M	Legion	- L Cont MI	W 10 141 W		
	LF55	40	40	70	75	PO	p 5	90	95	100	105	110	115	120	12*	5. w
1.2					1											1
Ç. A					1											
İVF		. 9	.3	• ^		.3	. 1	.1	٥.٠	121	r.n		•^		- 1	2.7
	WASFUL	FF "Z "	PEAKS FOR	VELOC	CTTY V5	47 RY	Y KEIGHT	T 8000.	. ALT 1	TUDE	LFS5					
	Fee	40	67	70	75	P O	pk	90	95	1 22	105	110	:15	120	125	Si w
1 • 3			1		1		1									
0 . R 51 IM			1				1									
! YF	17.4	9.7	4.6	1.7	2.6	1.4	K.n	7.4	1	1,4	! • •	٠,	0.1	٠.٢	r.n	73.
	MANFILL	FP 1.7	PFAKS FOR	ארו אל	CITY US	17 RY	Y WEIGHT	T Room.	. AL T J	TIPE .	-4000 M	viction	SECHENT	ASCENT		
	(FSS	40	An	7 7	75	Rn	qe	90	95	120	125	117	115	120	124	<+; M
1.5						1				1						,
1 • 2			1			1	1	1	1							
r.,e		1				1										
0.5										1						
C: 11		1	1		2	3	1	1	1	2			2	,		100
1 MF	F . 6.	4.7	4.6	3.1	5.0	P.4	: 3.7	14.9	23.A	11.9	10.1	2.7	• 1	• 1	• 1	179.
	24.4 P1 1	~ . 7	TOWA ENE	:=1.0(, 6	n	+1641	2200.	** *1	Ar	V		*	red Asset 1 (C		
			DEAVE FOR				Y WEIGHT				-^aac. *1					*118
1.4	1845	4^	A 0	77	75	PΩ	P S	90	3 €	100	175	1.0	115	127	125	SUM
1.2				1							1					
^.8 ^.7 ^.6	1															
	1			ı							1					
· · · F	1.7	3.7	1.9	1.2	۰,۵	. 7	.4	• 2	. 9	•2	• 1	0.0	(•(0.0	0.0	11.
	MANFUVE	FP NZ F	PEAKS FOR	VELOC	CITY VS	NZ RY	Y WEIGHT	8000	ALTIT	THPE -	.600c. MI	ונפוריו	SEGMENT	DESCAT		
1.4	LFS5	40	60	70	75	R D	A5	90	95	100	105	117	115	120	125	ب ل به
1.3			1		2	3	1	1	3							1
1.2 n.# n.7					2	,	1	1	3							11
0 - 6 50 M			1		1	3	2	3	4							14
TMF	3,7	6.3	3,1	1.1	2.5	3,6	9.9		20.1	15.4	P.0	7.9	1.5	.3	•••	23.
			•			•	•					•	.,	•	•	
	MANEGIVE	FP 47 F	PEAKS FOR	VELOC	TTY V5	NZ RY	/ WEIGHT	8000 ·	ALTIT	rune =	6000 MT	155104	SEGMENT	STEACY		
	[FEG	40	A D	71	75	80	P5	90	95	100	10*	110	115	120	125	40r
1.5									1							
1.3						2	-1	2	i	3	2	1				1
1.2 C.B C.F C.F						1	7	5	5	2						1
								1		1						
0.5						3	5		A	6	?	1				3

TABLE LVIII - Continued

														·		
	MANIFE	IVER HZ	PEAKS FOR	VELO	CITY V5	NZ AY	WEIGHT	8000	ALTI	TUDE -	-6000					
1.5	LFSS	41	60	70	75	AO.	P.5	90	95	រុកព	105	110	115	120	125	SUM
1.4				1		1		1	1 2	1	1					3 5
1.2			2	•	2	6	7	4	4	3	ž	1				31
0.7	1	1			1	2	3	1	6	2						27
0.5 SIM	1	1	2	1	3	9	10	12	13		3	1				64
TIME	30.4	14.7	12.0	8.0	13.9	26.6	49.6	74.8	97.4	134.6	111.6	66.3	25.1	5.0	.1	670.0
l	MANEI	IVER NZ	PEAKS FOR	VELO	CITY VS	NZ RY	WFIGHT		AL TI	TUDE -	-3non• !	*15510N	SFGMENT	ASCENT		
1.3	LF55	40	40	70	75	90	P5	90	95	100	105	110	115	120	125	SUM
1.2					1	2	1	1	2							7
0.7			1	ι	3						1					2
0.5 SIM			1	1	4	2	1	1	2		1					13
TIME	7.1	8.4	7.3	6.5	12.9	9.7	A.4	9.9	12.4	A.3	3.0	3.0	•1	0.0	0.0	95.3
	MANFL	IVEP 17	PEAKS FOR	VELO	CTTY V5	P'Z BY	WFIGHT	8000	ALTI	TUDE	-3000 •	MISSION	SEGMENT	MANUVR		
1.5	LF55	40	40	70	75	#O	45	90	95	100	105	110	115	120	125	SUM
1.4									1		1					1
1.2		1				1	1		1	2						6
Şiju		1					1		2	2	1					8
TIME	•1	٠,	1.9	1.6	.4	1.5	1.0	1.2	2.1	1.6		• 1	0.0	0.0	0.0	13.3
	MATTE	WER MIZ	PEAKS FOR	VELO	CITY VS	NZ RY	WEIGHT	8000 ·	ALTI	TUDE .	-3000 -	rission	SEGMENT	DESCHT		
	LFEG	40	69	70	75	80	85	90	95	100	105	110	115	120	125	SUM
1.4								•			1					1
1 • 2 n • R n • 7			1		1	2	4	3	6	1	5	1				27 3
0.6										•	i					í
SIM			1		1	2	4	3	6	5	9	1				32
T] **F	4.4	4.3	2.5	2.2	3.3	4.2	6.2	11.5	12.3	14.0	12.2	4.4	.5	-1	0.0	92.2
	MANPIN	VED N7	PEAKS FOR	VELO	CITY VS	NZ BY	WEIGHT	8000.	ALTI'	rune -	1000 - H	ISSION	SFGMENT	STEADU		
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
1.3		4.7		. •	••	•••	1	1	2	2	•••		•••	•••	•••	6
0.8									1	5	1					8
0.6 5IJM							• •	1	3	7	1					14
TIME	37.7	1.0	2.0	4.3	8.8	24.2	53.7	85.2		153.4	64.2	23.7	22.0	0.0	0.0	615.1
	MANFU	VED NZ	PEAKS FOR	VELO	CITY VS	NZ BY	WEIGHT	8000+	ALTI	TUDE -	3000					
1.5	LFSS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
1.4									1		2					1 2
1.3 1.2 0.8		1	1		2	5	7	5	11	8	5	1				46
0.7			1	1	3		• 1		1	6	3					15
0.5 511M		1	2	1	5	5	A	5	13	14	12	1				67
TIME	44.5	14.5	13.7	14.6	25.4	39.7	67.5	107.7	165.9	177.3	A0.2	31.3	22.6	•1	0.0	805.9

TABLE LVIII - Continued

	MANEU	VER NZ	PEAKS FO	D VELO	CITY VS	NZ F	Y WEIGHT	cons 1	ALT	TUDE	0.	*15510N	SEGMENT	ASCEPIT		
1 - 3	LF55	40	6.3	70	75	80	45	90	95	100	105	110	115	120	125	SUM
1.2		1			1		1	1	1		1		1			
0.8			2	1				1				1				
0 . 6 51 IM		1	2	ı	1		1	2	1		1	1	1			1
۳E	1.3	4.6	,, o d	5.3	3.9	4.2	3.1	3.8	4.2	1.0	.8	.1	•2	•2	0.0	39.
	MANFU	VFP NZ	PEAKS FO	OR VELO	city vs	*12 F	BY WEIGH	T #000	. ALT	ITUDE	0.	₩15510N	SEGMENT	MANUVR		
	LFSS	40	60	73	75	AC.	85	90	95	100	105	110	115	120	125	SUP
1.5							1									
1.4					1			1				2				
1.2			1		ī		1	·	ι			-				
0.7				1		1						1				
0.5					1											
K IM			1	1	3	1	?	1	1			3				1
I™F	1.1	1.3	• P	1.2	1.5	.7	.7	• 7	• 1	.3	•7	.8	•2	0.0	0.0	10.
		VER MY	PEAKS FO	P VELO	CITY VS	NZ F	TY WFIGH	T 8000	, ALT	TUDE	0.	MISSION	SEGMENT	DESCNT		
1.4	1 F 5 5	47	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
1.3		1				2				1						
8		•				2					1					
. 6										1	2 1					
0.45 KUJM		1				2				2	4					
۳E	3.7	5.9	3.3	1.9	3.4	3.6	6.5	7.2	9.6	5.6	1.6	.4	•1	0.0	0.0	52.
	MANEG	VER +17	PEAKS FO	P VELO	CITY VS	NZ F	Y WEIGHT	f 8000	, ALT	TUDE	0.	MISSION	SFGMENT	STEADY		
	LFSS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
1.3					1			1	2		2					
. A					1			1								
1 . A 1 . #4					,			2	2		2					
vF	6.9	1.0	3.A	8.1	16.5	47.9	70.8	42.7	62.6	30.7	7.0	.0	0.0	0.0	0.0	293.
	MANEU	FR NZ	PEAKS FO	P VFLO	CITY VS	NZ B	Y WFIGHT	8000+	AL TI	TUDE	0					
	LF55	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
.5						151	1			•	•		***			
. 4					1		•	1				2				
.2		2	1		3	2	2	2	4	1	4	2	1			2
. 7			2	2	1	1		2		1	2	2				13
. 5					1						1					:
i IM		2	3	2	6	3	3	5	4	2	7	4	1			42
N'F	17.5	12.8	14.7	16.4	25.4	51.4	81.1	44.4	76.5	37.6	10.2	2.1	.5	. 2	0.0	395.6
	MANEUV	FP +2 1	PEAKS FOI	P VELOC	TTY VS	NZ B	Y WEIGHT	8000								
	LFSS	40	60	70	75	80	P.5	90	95	107	105	110	115	120	125	SU!
•6							1									1
• 4				ι	1	1		2	2 2	1	3	2				12
• B		3	*			13	1'7	11	19	11	11		1			101
. 7	1	1	2	3	1	3	4	8	7	9	5	2				50
.6								-		-						
.6 .5	1	4	P	4	15	17	27	22	30	24	22	6	1			176

	MAFFIN	FP 1.Z	PEAKS FOR	VELOC	IITY V5	47 P	WEIGHT	9000.	ALTTI	TUDE	LFSS. P	15510N	SEGMENT	ASCENT		
,	LFSS	40	60	70	75	#O	A5	90	95	100	105	11'	11%	120	125	SUM
. ?						1										
. A IIM						1										
MF	3.1	2.0	7.3	2.1	2.1	5.3	7.1	1.5	2.1	1.7	1.6	0.0	0.0	0.0	0.0	25.
	MAZIFITY	FP "7	PEAKS FOR	VFLOC	11TY V5	NZ BY	Y WEIGHT	9000+	ALTI	TUDE	LF55. M	15510N	SEGMENT	MANLVR		
	LFSS	40	6 2	70	75	50	85	90	95	100	105	110	115	120	125	SUM
• 3						1										
₽. NII						1										
٧Ę	0.0	0.0	^•∩	• 0	• 1	•1	• 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	MANE VI	FP . 7	PEAKS FOR	VFLOC	1TY V5	F7 91	Y WEIGHT	90000	ALTII	TUDE	LF55. P	15510N	SEGMENT	DESCNT		
	L FSS	40	41	7)	75	80	P5	90	25	100	105	110	115	120	125	SUM
. ?		1						1								
. R		1						1								
'A F	• *	1.6	.7	• 7	.4	• 9	. A	1.2	•.	• 1	• 2	• 3	•6	• 3	0.0	7.
	MANGERN	1 5	PFAKS FOR	VELOC	1114 V5	NZ O	Y WEIGHT	9000	ALTII	TUDE	LF55					
,	LFSS	4^	*^	70	75	40	A 5	90	95	100	105	110	115	120	125	50/
. 2		1				2		1								
, p		t				2		1								
VF	3.2	1.5	4.7	2.2	3.1	9.4	a.0	4.1	2.8	2.8	8.5	23.2	7.0	. 6	0.0	98
	** 6 * , 5 1 5	(P .7	DELYS FOR	VELOC	TTY VS	N7 PY	Y WFIGHT	9000•					SEGMENT			
. 6		4	60	73	75	90	#5	90	95	100	105	110	115	120	125	501
. '												1				
• ;;												1			2.0	
**F	1.1	• 4	•1	• ?	•*	2.9	2.3	6.4	3.7	2.8	.6	1.9	1.8	. 3	0.0	25
									- • •							
				VFL0C1			r WEIGHT		ALTIT		105		. 16	120	125	SUM
. Я	LFCS	40	47	77	75	80	45	90	95	100	105	110	115	120	175	
. 7												1				
												1 40 2	.7.6	9	0.0	198.
MF	7.7	3.0	7.8	3.1	7.3	14.7	21.6	28.5	12.1	13.5	15.9	40.2	17.6	.9	0.0	198.
							-1247	2000								
			DEAKS FOR						35	100	105	110	115	120	123	SU
٠,	LFES	40	40	70	75	AO 2	45	311	37	10 /	105	117	117	120	147	Ju
		1				2						,				
. R												1				
• 7 • 8 • 7 • 6		1				2		1				1				

TABLE LVIII - Conclu	uded	nc1	Cor	_	II	LVI	LE	ABI	Т
----------------------	------	-----	-----	---	----	-----	----	-----	---

	1 F 5 5	40	60	70	75	RC	85	90	95	120	105	110	115	120	125	SUM
1.6																
1.5					1	1	1		2							
1.4		1	1			1	1		3	1						
1.3		1	2	4	4	1	1	3	6	2	4	4		1		3
1.2	7	1 5	*0	4	24	29	20	42	30	24	20	10	4	ì	1	26
0.8																
0.7	2		n	7	14	14	21	28	19	74	15	6	1	1		16
0.6			1		7	5	4	6	1	3	3	i	1			3.
0.5		1			1	1	1	;								
0.4																
CIM	Q		33	15	53	51	5 A	RO	61	54	42	21	6	3	1	50

TABLE LIX. $n_{\boldsymbol{X}}$ PEAKS FOR AIRSPEED VERSUS $n_{\boldsymbol{X}}$ BY WEIGHT

								******				********				*****
	*17	PEAKS !	FOR ATR	SPFED	V5 NX	AY WE	IGHT	6000								
	LFSS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
-0.40																1
-0.35 -0.30	1															•
-0.25 -0.20																
-0.15 -0.10																
7.10 9.15	2															2
0.20																
0.30 0.35																
0+40 5HM	5															5
TIVE	25.0	14.1	10.3	6.5	18.0	31.4	27.7	49.1	67.R	77.8	38.6	31.4	19.5	6.9	.0	425.3
									-					inte		
i		L V & C		SPFED	VS NX		IGHT	7000		100	105		,,,	120	125	SI IN
[Fee	LF44	40	47	70	75	An	P 5	90	95	100	105	110	115	120	125	SUM
-0.40 -0.35																
-1.11 -1.25																
-0.20 -0.15																
-0.10		1														7
0.15	,															2
0.25																
0.35																12
Ç.10		1					145 0					174.0	.02.4			2207.0
TIME	143.4	78.7	66.1	44.9	63.5	117.4	107.8	23443	*11.5	31844	244.4	17440	107.6	10.2	.,	220100
	NX	PFAKS	FOR ATR	SPFED	VS NX	BY WE	IGHT	6000								
LF55	LESS	40	60	70	75	An	85	90	95	100	105	110	115	120	125	SUM
-0.40 -0.15																
-0.30 -0.25																
-0.20 -0.15																
-0.10 0.10	1															1
0.15	i															i
0.25																
0.35																
Siles	2															2
TIME	105.7	51.0	45,2	40.6	67.2	121.6	205.0	250,9	370.4	370.8	211.5	100.9	48.2	5,3	.1	1994.6
	412	PEAKS !	FOP AIR	SPEED	VS NX	RY WE	1 GHT	9900								
	1 655	40	60	70	75	RO	85	90	95	100	105	110	115	120	125	SUM
-2.40																
=3.35 =0.30																
-0.25 -0.20																
-0.15 -0.10																
0.10 0.15	2															2 1
0.25																-
0.30 0.35																
7.40 Supt	1															3
TIME	27.9	17.4	16.3	16.4	28.0	66.0	116.3	100.6	62.4	96.3	41.8	65.2	24.7	1.5	0.0	680.7
TIME	27.9	17.4	16.3	16.4	28.0	66.0	116.3	100.6	62.4	96.3	41.8	65.2	24.7	1.5	0.0	680.7

TABLE LX. $n_{\boldsymbol{X}}$ PEAKS FOR AIRSPEED VERSUS $n_{\boldsymbol{X}}$ BY ALTITUDE

	NX PE	us for	AIRSP	EED VS	MX AY	ALTI	TUDE	LESS								
	LFSS	40	60	70	75	90	45	90	95	100	105	110	115	120	125	504
LF55																
-0.40 -0.35																
-0.25																
-9-20																
-0.15 -0.10																
0.10	1															1
0.20																
0.30																
2.40																
SUM	1															1
TIME	42.7	20.4	11.5	7.4	11.8	18.2	24.R	41.6	34.0	21.0	20.7	30.4	7.1	.6	0.0	293.0
	NY C-	AKS FOO	AIPSP		4X 8Y	ALTI	TUDE	-3000								
		40				80	85	90	95	100	105	110	115	120	125	SUM
LFSS	LESS	•0	60	70	75	40	**	***	45	100	103	110	112	120	14.	***
-9.40 -9.35	1															1
-7.30																-
-0.25																
-0.15 -0.10																
2.10	10															10
0.15 0.20 0.25	2															•
0.30																
0.35																
0.40 50M	13															13
TIME	148.8	70.8	61.8	49.4	03.6	145.7	194.8	302,4	485.7	487,3	257.8	139.0	85,5	13.2	•5	2528.0
	1:X PF	AYS FOR	ATRSP	FED VS	NX	ALTI	TUDE	0								
	LFSS	40	40	72	75	80	85	90	95	100	105	110	115	120	125	SUM
LE55																
-0.40 -0.35 -0.30																
-0.25																
-0.20																
-0.10																2
0.10	,	1														í
0.20	-															
0.30																
0.40																
5114	•	1														5
TIME	39.1	26.1	32.5	34.7	52.0	114.6	202.7	154.0	163.9	113.9	40,3	27.6	21.3	2.2	.2	1050.0
	HE PE	S FOR	A195P	FFD VS	4X 8Y	ALTI	TUDF	SUM								
1,555	FCC	40	40	70	75	80	85	90	95	100	105	110	115	120	125	SUM
-7.40 -0.35																1
-0.35 -0.30	1															•
-7.25																
-7.20 -7.15																
-n-10	11	1														12
2015	•	-														•
0.25																
0.25																
7.49 SIIM	10	1														19
TIME			137-0	100.5	177-5	334-0	514-8	450.0	912-3	063.0	534.6	371.5	200.0	24.0	.4	5307.6
1 (17)	302.5	161.07	13/04	.0007		3344			7							

TABLE LXI. $n_{\mathbf{X}}$ PEAKS FOR LONGITUDINAL CYCLIC BOOST TUBE LOAD DEFLECTION VERSUS $n_{\mathbf{X}}$ BY MISSION SEGMENT

N.						/5 NA B1			-0.10	0.10	0.15	0.20	0.25	0.30	0.35	0.40	50
+50 +00 +00		-0		-0137	-0130			-0013	-0110	0.10	4113	0.20	0.63	0.30	0.50	0.40	יכ
250 200 150 100										3	1						
200										1							
+00 +50 50#										•	1						
14.1	LPEAS	5 + 06	(7	-LNG DA-	LECTN	/5 NX B1	M155.	566.	MANUVH								
. 55	LE 55	-0.	40	-0.35	-0.90	-0.25	- 0.20	-0.15	-0.10	0.10	0.15	0.20	0.25	0.30	0.35	0.40	5
150 150 150 150 150 150 150 150 150										1	2						
50 00 50 UM										ı	2						
ų,	ne we	5 FOR	۲.	LNG UP	LECTN V	5 NX 8Y	M155.	SEG.	DESCNI								
55 50 00 50 90	LE55	-0.	4 0	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	0.10	0.15	0.20	0.25	0.30	0.35	0.40	SU
50 00 50 00 50 00 50				1						3							
50 50 UM				1						3							

	···	 ·	 Т	ABLI	E LX	I -	Con	clud	ed					
55				MI55.		51EAUT -0.10	0.10	0.15	0.20	0.25	0.30	0.35	0,40	
90 90 90 90 90 90 90 90 90 90 90							3	11						
00 00 00 00 00 00 00 00							3	ì						
55 50 00 50	_			M155. -0.20		5UM -0.1U	0.10	0.15	0.20	0.25	0.30	0.35	0.40	
50 50 00 00 50 00		1					9 1 1	•						
90 90 90 90		1					11	4						

TABLE LXII. ny PEAKS FOR AIRSPEED VERSUS ny BY WEIGHT

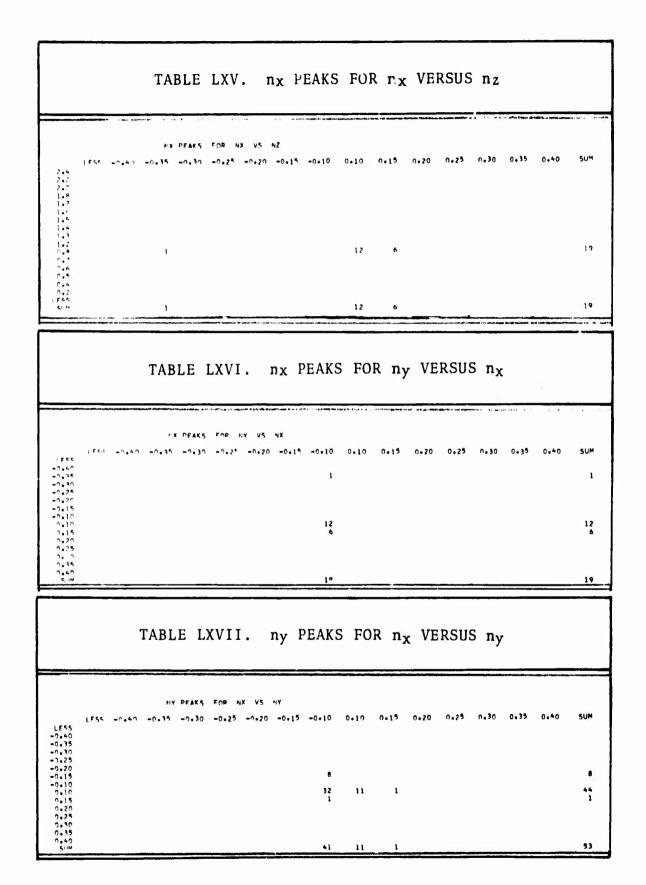
	fe i	PEAKS F	OP AIR		VS NY		IGHT	6000								
	LFSS	40	60	70	75	90	95	90	95	100	105	110	115	120	125	SUM
LFSS		4				.,,	. ,			• • •	• • •	•				
-7.40																
-7.35																
-1.30																
-0.25																
-0.20																
-0.15																
-0.10																
2.10	1									1						
0.15																
0.20																
7.30																
7.35																
1.40																
S 'M	1									1						
TIME	25.0	14.1	10.3	6.6	18.8	31.4	27.7	49.1	67.8	77.8	38.8	31.4	19.5	6.9	•0	425.
	8.00	PEAKS F	00 410	SPFED	V5 NY	HY WE	1GHT	7000								
	-14	TAPS F	TH WIN	נישייר	4.2 M4	L. M.	1001	(000)								
	LFSS	40	60	70	75	80	45	90	95	100	105	110	115	120	125	SU₩
LFSS	61.77	•1.		,	,,	H.C.		• ,	,,		177				,	
-1.40																
-1.35																
-7.30																
-9.25																
-1.70																
-7.15					1				2		1					
-2-10								-								_
0.10	4	3	7	t	1	2	1	2	2		1					2
0.15																
2.20																
2.25																
1.30																
7.45																
C / (M	4	1	7	ı	4	2	1	2	4		2					3
	-	•														
TIME	143.6	70.7	66.1	44.9	63. K	117.9	165.9	259.3	411.6	318,9	244.4	174.0	107.6	10.2	. 3	2277.
	4. 9	PEAKS FO	np 4104	SPFED	VS NY	RY WE	I GHT	9000								
	LFSS		· Alw	FE				4000								
LFSS		4.71	60	70	76	80	RE	90	9.5	100	105	110	115	120	125	SUM
	2	4(1	60	70	75	80	85	90	95	100	105	110	115	120	125	508
7.40		40	60	70	75	80	R 5	90	95	100	105	110	115	120	125	508
	2	4(1	60	70	75	RO.	R5	90	95	100	105	110	115	120	125	SUM
1, 15	2	4(1	60	70	75	#O	R5	90	95	100	105	110	115	120	125	SUM
-0.35 -0.30	2	4(1	60	מז	75	R O	RS	90	95	100	105	110	115	120	125	SUM
10.35 -0.30 -0.25 -0.20	2. 1	4(1	60	מז		RO.	R5		95	100		110	115	120	125	
0.35 0.30 0.25 0.20		4(1	60	70	75		R5	90	95	100	105	110	115	120	125	
-0.35 -0.30 -0.25 -0.20 -0.15			60	70				2				110		120	125	
0.35 0.25 0.20 0.15 0.10	2	4(1	60	70					95	100		110	115	120	125	1
-0.35 -0.30 -0.25 -0.20 -0.15 -0.10 -0.10			60	70			85 2 1	2				110		120	125	1
-0.35 -0.30 -0.25 -0.20 -0.15 -0.10 -0.15 -0.20			60	70				2				110		120	125	1
-0.35 -0.30 -0.25 -0.20 -0.15 -0.10 -0.15 -0.20			60	70				2				110		120	125	1
-0.30 -0.25 -0.20 -0.15 -0.10 -0.15 -0.20 -0.25			60	70				2				110		120	125	1
-0.35 -0.25 -0.15 -0.16 -0.16 -0.16 -0.25 -0.35			60	70				2				110		120	125	1
-0.35 -0.25 -0.15 -0.15 -0.15 -0.15 -0.25 -0.25 -0.25	2	3	60	70	1		7	2	ı	3	1	110	1	120	125	t
-0.35 -0.25 -0.15 -0.16 -0.16 -0.16 -0.25 -0.35			60	70				2				110		120	125	5UM 1
	2	3	45.2	70 40.6	1		7 1	2	1	3	1		1	120		1
0.35 0.30 0.25 0.20 0.10 0.10 0.10 0.10 0.25 0.30 0.35 0.30 0.35	?	3			1		7 1	2 3	1	3	1		1			1
	2 2 105.7	3	45.2	40.6	1 67,2	121.6	7 1	2 3	1	3	1		1			1
	2 2 105.7	3 51.0	45.2	40.6	1 67,2	121.6	? 1 3 205.0	2 3 5 250,9	1 370.4	3 370.8	1	100.9	1 1 48.2		•1	1
	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 V< NY	121.6 sy We	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1	5.3		1 2 1994.
	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 V< NY	121.6 sy We	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 2 1994.
-0.35 -0.375 -0.275 -0.270 -0.170 -0.170 -0.170 -0.275 -0.370	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 V< NY	121.6 sy We	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 2 1994.
	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 V< NY	121.6 sy We	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 2 1994.
-n-35 -n-275 -n-276 -n-16 -n-16 -n-16 -n-16 -n-25 -n-30 -n-3	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 V< NY	121.6 sy We	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 2 1994.
-n-35 -n-275 -n-275 -n-176	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 V< NY	121.6 sy We	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 2 1994.
-n-35 -n-25 -n-215 -n-10 -n-115 -n-115 -n-15 -n-15 -n-15 -n-15 -n-15 -n-15 -n-15 -n-15 -n-15 -n-16	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 V< NY	121.6 sy We	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 2 1994.
-n-35 -n-25 -n-25 -n-10 n-10 n-15 n-25 n-30 n-30 n-30 n-40 511M FIME LP-45 -0-30 -0-15 -0-16 -0-1	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 VS NY	121.6 sy We	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 1994. SUM
-n-35 -n-25 -n-25 -n-16 -n-16 -n-16 -n-16 -n-25 -n-36 -n	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 V< NY	121.6 sy We	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 1994. SUM
-n-35 -n-25 -n-25 -n-16 -n	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 VS NY	121.6 sy We	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 2 1994.
-n-35 -n-25 -n-25 -n-215 -n-110 -n-15 -n-25 -n-310 -n-36	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 VS NY	121.6 Ry WF	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 1994. SUM
-n-35 -n-25 -n-25 -n-15 -n-16 -n	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 VS NY	121.6 Ry WF	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 1994. SUM
-n-35 -n-25 -n-215 -n-10 -n-116 -n-15 -n-16	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 VS NY	121.6 Ry WF	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 1994. SUM
0-15 0-25 0-25 0-35 0-35 0-36 50M FIME L9-45 0-35 0-25 0-15 0-15 0-15 0-15 0-35	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 VS NY	121.6 Ry WF	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 1994. SUM
-n-35 -n-25 -n-215 -n-10 -n-116 -n-15 -n-16	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PFED	1 67.2 V< NY 75	121.6 Ry WF	7 1 3 205,0	2 3 5 250,9	1 370.4	3 370.8	1 211.5	100.9	1 1 48.2	5.3	•1	1 1994. SUM
-n-35 -n-275 -n-275 -n-215 -n-215 -n-215 -n-215 -n-215 -n-216 -n-25 -	2 105.7	3 51.0 Praks Fo	45.2 S AIRS	40.6 PPED 70	1 67.2 VS NY	121.6 RY WF RC	7 1 3 205,0	2 3 5 250,9 9000	1 370.4	3 370.8	1 211.5	100.9	1 48.2 115	5.3	.1	1 1994. SUM

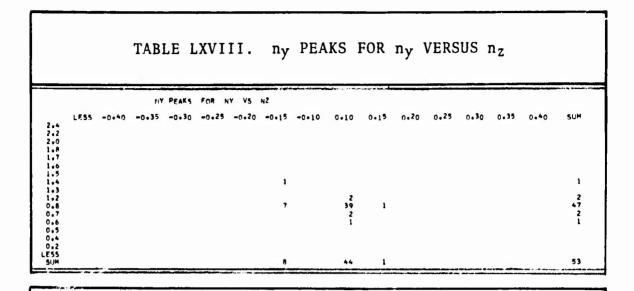
TABLE LXIII. ny PEAKS FOR AIRSPEED VERSUS ny BY ALTITUDE 1 LESS -0.40 -0.35 -0.20 -0.25 -0.20 -0.15 -0.10 0.15 0.20 0.25 0.30 0.40 32 TIME .2 1058.8 120 53 161.7 137.9 108.5 177.5 336.9 514.8 659.9 912.3 863.8 536.6 371.5 200.0

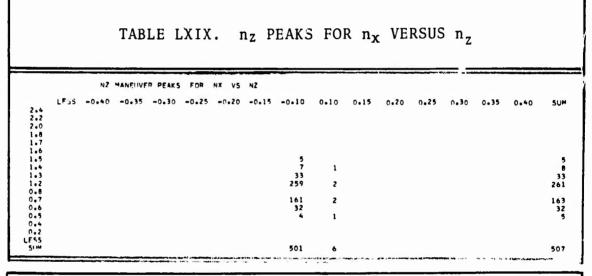
TABLE LXIV. n_y PEAKS FOR LATERAL CYCLIC BOOST TUBE LOAD DEFLECTION VERSUS n_y BY MISSION SEGMENT

4								7 MI55.		ASCENT							
	LESS	-0.4	0	-0.35		U• 30	-0.25	-0.20	-0.15	-0.10	0.10	0.15	0.20	0.25	0.30	0.35	0.40
									1		14 4 1						
									1		20						
4 7	PF ARY	4O+	(▼-	LATE)FLE	CTN 1	/5 NY 8	Y M155.	SEG.	MANUVH							
										-0.10	0.10	0.15	0.20	0.25	0.30	0.35	0.40
									1								
									1								
٧	PFARS	+OP	C Y-	LAT U	FLF	CTN 1	/5 NY B	Y MI55.	5 E 6.	DESCNI							
	LESS	-0.4	0	-0.35	•	U•30	-0.29	-0.20	-0.15	-0.10	0.10	0.15	0.20	0.25	0.30	0.35	0.40
									1		4						
									1		5						

TABLE LXIV - Concluded







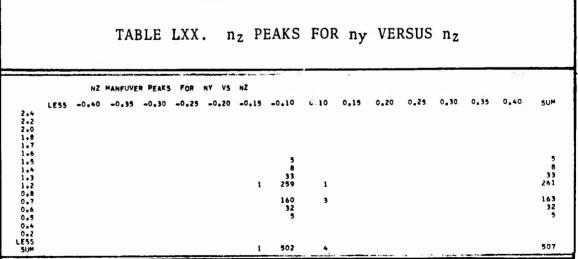


TABLE LXXI. n_{ze} PEAKS FOR µ VERSUS n_{ze} BY ALTITUDE AND MISSION SEGMENT

NZE PEAKS FOR MU VS NZE BY ALT LESS MIS-SEG ASCENT

	NZE	PEAKS	FOR MU	VS NZE	BY ALT	LESS	MIS-SE	G ASCENT
2.4	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
2.4 2.2 2.0 1.8 1.7 1.6 1.5 1.4 1.3 1.2 0.8 0.7 0.6 0.5 0.4 0.5	,		1	1 ? 1				1 1 2 1
SUM			1	4				5
TIME	3.9	5.3	9.4	22.1	9.5	0.0	0.0	50.2
2.4 2.2 2.0 1.8						-6000 0•25		G ASCENT SUM
1.7 1.6 1.5			1	4 2				5 2
1.4 1.3 1.2 0.8 0.7 0.6 0.5				2	3			5 2
0.4 0.2 LESS SUM	4.1	17.6	118.8	9 93•8	4 63•1	• 3	0.0	14 197•6

	NZE	PEAKS	EUS MA	V5 NZF	RY ALT	-3000	MIS-SEG	ASCEN
2.4 2.2 2.0	LF55	0.05	0.10	0.15	0.20	0.25	0.30	SUM
1.8 1.7 1.6 1.5 1.4 1.3			1	1 5 9 11 4	2 1 3 8 7 3	1		2 2 8 18 19 7
0.8 0.7 0.6 0.5 0.4			1	5	7			13
LESS SUM			2	36	31	1		70
TIME	8 • 2	11.2	30 • 1	128.0	107.4	3.1	0.0 28	38.0
	NZE	PEAKS	FOR MU	VS NZE	BY ALT	0	MIS-SEG	ASCENT
2.4	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
2.2 2.0 1.8				1				1
1.7				1				1
1.5			3 1	3				3 4
1.3					1			1
0.8 0.7 0.6 0.5 0.4 0.2				2				2
LESS SUM			4	8	1			13
TIME	1.5	3.2	20.4	49.6	25.2	• 7	0.0 10	0.6

			TABLE	LXXI -	- Conti	nued		
	NZE LESS		FOR MU 0.10	VS NZE	BY ALT			ASCENT
2.4 2.2 2.0 1.8 1.7 1.6 1.5	Lr. 33	(1.0.1)	0.10		0.20	0.25	0.30	SUM
1.2 0.8 0.7 0.6 0.5 0.4 0.2 LESS SUM				1				1
TIME	0.0	• 9	4,5	7.0	21.9	0.0	0.0	34•3
	NZE	PEAKS	FOR MU	VS NZE	BY ALT	6000	MIS-SEG	ASCENT
2.4 2.2 2.0 1.8 1.7 1.6	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
1.4 1.3 1.2 0.8 0.7 0.6 0.5 0.4 0.2 LESS			1					1
SUM			1	•				1
TIME	0.0	0.0	• 9	1.2	2.7	0.0	0.0	4.7

			TABLE I	XXI -	Conti	nued		44
	NZ	E PEAKS	FOR MU	VS NZE	BY AL1	LESS	MIS-S	EG MANUVR
2.4	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
2.2 2.0 1.8 1.7 1.6 1.5 1.4 1.3 1.2 0.8 0.7 0.6			1	1 1				1 2
0.4								
LESS SUM			1	2				3
TIME	0.0	• 2	1 • 0	1.4	0.0	0.0	0.0	2.6
	NZE	PEAKS	FOR MU V	VS NZE	BY ALT	-6000	MIS-SE	5 MANUVR
2.4 2.2 2.0 1.8	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
1.7 1.6 1.5 1.4 1.3 1.2 0.8 0.7 0.6 0.5 0.4		1	1 1	1	1			3 2 1 1
LESS SUM		1	3	2	1			7
TIME	0.0	3.5	4.9	3.3	1.7	0.0	0.0	13.4

		T	ABLE L	XXI -	Continu	ıed		
	NZE	PEAKS	FOR MU	VS NZE	BY ALT	-3000	MIS-SEG	MANUVR
2.4	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
2.4 2.2 2.0 1.8 1.7 1.6 1.5 1.4 1.3 1.2 0.8 0.7 0.6 0.5 0.4 0.2 LESS SUM		4	2 2	5 2 2 4	1 1 3 1			1 2 6 7 3 10
TIME	• 5	1.2				0.0	0.0	24.0
2.4 2.2 2.0 1.8 1.7 1.6 1.5 1.4 1.3 1.2 0.8 0.7 0.6 0.5 0.4	NZE LESS	PEAKS 0.05			BY ALT			MANUVR SUM 1
SUM TIME	0.0	0.0	• 5	1.9	0.0	0.0	0.0	2.4
			-	- •				

			TABLE 1	LXXI -	Conti	nued		
	NZ	E PEAKS	5 FOR MU	VS NZI	E BY AL1	r LESS	MIS-SEC	G DESCNT
2.4	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
2.2 2.0 1.8 1.7			_					-
1.6 1.5 1.4			2	2 1 2				1
1.3 1.2 0.9 0.7 0.6 0.5				2				2
0.2 LESS								
SUM			2	5				7
TIME	1.9	8.4	10.2	17.4	13.0	•6	0.0	51.6
	NZE	PEAKS	FOR MU	VS NZE	BY ALT	-6000	MIS-SEG	DESCNT
2.4 2.2 2.0 1.8 1.7	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
1.6 1.5			1	4 6	2			5 8
1.4 1.3			1	6 1	2			8
1.2 0.8 0.7			1	1	1			2 1
0.6 0.5 0.4 0.2 LESS								
SUM			2	17	5			24
TIME	3.1	11.5	16.4	61.6	77.7	9.0	0.0 17	8.2

			TABLE 1	LXXI -	Conti	nued			
	NZE	PF4KS	FOR MU	VS NZE	BY ALT	-3000	MIS-S	FG DESCI	NT
2.4	LFSS	0.05	0.10	0.15	0.20	0.25	0.30	SUM	
2.4									
2.0 1.8				1				1	
1.7 1.6				4	1 1			1 5	
1.5			1	8	16			25	
1.4 1.3			2 1	8 20	6			16 25	
1.2			2	3				5	
0.7			1	2	1			4	
0.6 0.5									
0.4									
0.2 LESS									
SUM			7	46	29			82	
TIME	6.6	11.1	23.5	76.0	149.1	8.9	0.0	275.2	
	NZE	PEAKS	FOR MU	VS NZE	BY ALT	0	MIS-S	EG DESC	NT
	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM	
2.4 2.2									
2.0									
1.8 1.7									
1.6 1.5			1	2	1 2			1 5	
1.4			2	2	4			4	
1.3 1.2		1		4	4	1		9 2	
0.8					_				
0.7 0.6				2 1	2	2		6 1	
0.5 0.4									
0.2									
LESS SUM		1	3*	12	9	3		28	
TIME	2.4	4.6		30.9	35.4	A.4	0.0	93.4	

		T.	ABLE L	XXI -	Continu	ed		
					BY ALT			
2.4 2.2 2.0 1.8 1.7	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
1.6 1.5 1.4 1.3 1.2 0.8 0.7		1	1	1				1 1 2
0.5 0.4 0.2 LESS SUM	0.0	1	1 1•0	2 5•9	20.9	9.4	0.0	4 37.7
	NZE	PEAKS	FOR MU	VS NZE	BY ALT	LESS	MIS-SEG	STEADY
2.4 2.2 2.0 1.8 1.7 1.6	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
1.4 1.3 1.2 0.8 0.7 0.6 0.5 0.4 0.2 LESS				1				1
SUM TIME	18.8	8.8	6.5	1 65.0	53.0	• 3	0.0 15	1

		•	TABLE 1	LXXI -	Contin	nued		
	NZE	PEAKS	FOR MU	VS NZE	RY ALT	-6000	MIS-SFG	STEADY
2.4	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
2.2 2.0 1.8 1.7 1.6 1.5 1.4 1.3 1.2 0.8 0.7 0.6		1	1	6 6	1 3 3 7			1 3 9 14
0.2 LESS SUM		1	1	12	14			28
TIME	16.7					17.1	0.0 5	76.8
	• • •							
	NZE	PEAKS	FOR MU	VS NZE	BY ALT	-3000	MIS-SEG	STEADY
2.4	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
2.2 2.0 1.8 1.7 1.6 1.5 1.4 1.3 1.2 0.8			1	1 2 1 11 2 4	5 8 1 3			1 3 6 19 3 7
0.7 0.6 0.5 0.4 0.2 LESS				1 1				1 1
SUM	20.7	F	1 2 2	23	17	12 2	0.0.10	41
TIME	20.7	5.5	13.3	293.1	691.5	12.3	0.0 103	oo• 4

	N75	DEAVE	500 W	VC 435	DV 41 =			:-
	NZE	PEAKS	FOR MU	VS NZE	BY ALT	0	MIS-SFG	STEADY
2•4 2•2 2•0 1•8	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
1.7 1.6 1.5				2	3			5 3
1.4								
1.2 0.8 0.7 0.6 0.5 0.4 0.2				1	1			2
LESS SUM				4	7			11
TIME	5.1	4.3	8.3	209.9	143.6	6.7	0.0 37	8.0
	NZE	PEAKS	FOR MU	VS NZE	SUM			
2.4	LESS	0.05	0.10	0.15	0.20	0.25	0.30	SUM
2.0 1.8				2	1			3
1.7			8	2 28	7 11			9
1.6 1.5		2	8	40	38			88
1.4		_	9	47	27			83
1.3 1.2		2 4	4 5	44 19	21 9	1		72 38
0.8						_		
0.7 0.6 0.5			1	13 5 1	10	2		26 6 1
0.4								
LESS SUM		8	36	201	124	4		373

TABLE LXXII. $n_{\mbox{\scriptsize Ze}}$ PEAKS FOR AIRSPEED VERSUS $n_{\mbox{\scriptsize Ze}}$ BY ALTITUDE AND MISSION SEGMENT

	NZE	PEAKS	FOR YEL	VS NZE	BY ALT	LESS	MIS-SE	6 ASCE	NT							
2.4 2.2 2.0 1.8 1.7	LESS	40	6 0	70	75	8 0	27	90	95	100	105	110	115	120	125	SUM 1 1
1.5 1.4 1.3 1.2 0.8 0.7 0.6 0.5 0.4 0.2 LESS			·			1	1	1								1 1 2 1
SUM	7.8	6.0	1	3.9	5.1	2 7.7	1 3,6	1	6.1	4.1	1.6	0.0	0.0	0.0	0.0	5 56.5
				VS NZE				G MANU								
2.4 2.2 2.0 1.8 1.7	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
1.5 1.3 1.2 0.8 0.7 0.5 0.5 0.5 0.5 0.5			1		1	1										1 2
4E	0.0	.8	.3	•1	.4	1	.5	.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
	NZE	PEAKS I	FOR VEL	V5 NZE	BY ALT	LESS	MIS-SE	G VESC	NT							
1.4 1.2 1.0 1.7 1.6	LESS	40	60	70	75	80	65	90	95	100	105	110	115	120	125	SUM
1.6		2				1	1	1								1 2
55 UM		2				1	2	2								7
E	6.9	10.3	3.3	1.9	2.1	3.0	4.7	4.0	8.9	3.8	2.3	1.2	.7	.3	0.0	53.6

	<u> </u>				TAB	LE 1	LXXI	I -	Con	tinu	ued ———		·			
	NZE	PFAK5	FOR VEL	VS NZE	BY ALT	LE55	MI 5-5	EG STE	ADY							
2.4 2.2 2.0 1.8 1.7	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
1.6 1.5 1.4 1.3 1.2 0.8 0.7 0.6 0.5 0.4								ı								1
LESS SUM IME	28.0	3.3	3.5	1.4	4.2	7.2	16.0	1 31.0	19.0	13.9	14.8	29.4	6,3	.3	0.0	101.1
	NZE	PEAK S	FOR VEL	VS NZE	BY ALT	-6000	M15-5	EG ASCI	ENT							
2.4	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
2.2 2.0 1.8																
1.6			1			1 1	3	1	ı	1						2 6 3
1.3					1	•	•	2	1	1 2	1					1 5 2
0.8 0.7 0.6 0.5 0.4 0.2 E55																
SUM	17.8	11.0	1	7.5	1 14.2	3 26,6	4 36.8	3 33,6	2 34.8	4 .2.0	1	4.1				19
	1740			,,,	1442	2010	30,0	,,,,	,,,,	22,0	15.9	6.1	.5	•5	••	239.5
	NZE	PEAKS	FOR VEL	VS NZE	BY ALT	-6000	M15-5	EG MANI	JVR							
2.4 2.2 2.0 1.8	LESS	40	60	70	75	80	. 85	90	15	100	105	110	115	120	125	SUM
1.6		1	1	ı			1				1					3 2
1.4 1.3 1.2 0.8 0.7 0.6 0.5 0.4 0.2 E55		1		1			•				1					1
SUM IME	1.7	3.9	1 2,4	1.3	.9	,4	.5	.3	.9	.3	.4	•1	0.0	0.0	0.0	13.4

	N2 F	PFAK5	FOR VFL	VS NZE	BY ALT	-6000	#15 - 5	EG DES	iCNT							
	LESS	40	69	70	75	80	85	90	95	100	105	110	115	120	125	SUM
2.2																
1.6			1		1	2		ı								
1.5		1			1	1	1	2	1		1	1				
1 • 3 1 • 2 0 • 8		•				•				1			1			
0.7 0.6 0.5										•						
0.4 0.2 E55																
5UM 4E	13.5	17.9	7.1	2.9	3	12.3	15.0	3 24,8	33.0	27,3	19.9	1 15.7	12.4	1.6	0.0	209.
	NŽE	PEAKS F	OR VEL	VS NZE	BY ALT	-6000	#[5-\$E	G 31E	ADY							
.4	LESS	40	60	70	75	80	05	90	95	100	105	110	115	120	125	SUM
.0									1							1
.7						2	3	1	3	1 2 4	1					3 9 15
.5	1					•	•	4	i	2	1	1				10
. 2) . 8		1														
0.5																
0 • 2 E \$ 5 5 UM	1	1				3	•	10	7	9	4	1				40
ME	37.0	8.3	7.7	3,6	6.0	15.2	33.6	84.7	105.6	148.0	150.1	118.1	56.6	6.2	0.0	778.
	NZE	PEAKS F	OR VEL	VS NZE				G ASC			. 05	110	115	120	125	SUM
.4	LES5	40	60	70	75	60	85	90	95	100	105	110			•••	-
.0									2							2
.5		1	1		1 1	2	1 7	2	1 3 4	1 1	1	3	1	_		24 24
.3		1	3		2	i	2	2	4	1	1	1	1	1		24 24 9
•••		i	1		2	2	•	•	2	3	ı	2				21
0 · 8 0 · 7																
0.6																

	NZE	PEAKS	FOR VEL	VS NZE	BY ALT	-3000	MIS-5	EG MAN	UVR							
	LESS	40	60	70	75	40	85	70	75	100	105	110	115	120	125	SUM
2.2																
1.7		1							1		1					
1.5		2	1	2		1	1 1 1	1	1	3		1				
	4	i	1	i	1	1	i	•	ľ			•				1
0.6					1			1								
.2																
SUM!	4	5	2	4	2·	2	4	3,4	3,2	3 1.9	.9	.4	0.0	0.0	0.0	3 26,
1E	2.4	2.3	3.5	2.9	1.5	2,1	2.1	3,4	346	•••	• **	••	0,0	•••	•••	
	NZF	PEAKS	FOR VEL	VS NZE	BY ALT	-3000	MIS-3	eg Des	CNT							
. 4	LESS	40	60	70	75	80	85	90	45	100	105	110	115	120	125	SUM
2.0									1							
1.6		1	_		1		1	2			1					
.5		1 2	1 2 2	1 3	1 7	3	3	2 9	7 4 2	2	•	2				1 3
. 2) . 8	1	1	3		1	1	1	2 1		1						
0.5		•				•										
0.4 0.2 55										_		_				
SUM 4E	1 24.9	31.2	20.0	13.7	10-	24.1	10 23,1	17 39.8	41.8	46.7	8 47.7	40.9	20,1	5.1	0.0	397.
	NZE	PEAKS	FOR VEL	VS NZE	BY ALT	-3000	MI5-5	EG STE	ADY							
2.4	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
.6			1		1	1	1 1	1	2	2	1 2					
.3	2		1	1	1 1 3	3 1 1	1	7	3	3	1 2	1				1
•2 •8 •7					,		1			,						
0.5						1										
55	•		•			,				12		,				•
IE IE	92.9	11.9	2	13.8	30.0	7	5 118.5	104.9	386.7	13	100-6	2 80.6	57.8	7,5	0.0	

	NZE	PEAKS	FOR VEL	VS NZE	BY ALT	0	MIS-8	EG ASC	ENT							
2.4	LESS	40	60	70	75		85	90	95	100	105	110	115	120	125	SUM
2.0																
1.7					1											
1.5		1	2	1	1		1	1 2	1		1		1	1		
•3		i	·	•							1					
.7				11	ì											
• 6					•											
• 2 55		-			Į.			_					1	1		2
UM E	7.7	10.0	16.4	13.6	14.9	17.1	20,6	15,2	21.6	■.0	2 3,8	3.7	2.3	.3	0.0	157.
•			.0.			11.5										
	NZE	PEAKS	FOR VEL	VS NZE	BY ALT	0	#15 - 5	EG MAN	UVR							
. 4	LESS	40	60	70	75	RO	85	90	95	100	105	110	115	120	125	SUM
.0																
.7					1		1	1				2				
.5			1		i		1		1			-				
.3	1							1								
.7				1		1		1								
.5						_										
55			,	1	3	1	2	4	1			2				1
UM E	1 1.6	1./	1 1.5	1.9	2.8	1.3	1.9	2.9		,5	.7		.2	0.0	0.0	18.
	NZE	PEAKS F	OR VEL	VS NZE	BY ALT	0	M[5-56	G DESC	NT							
4	LESS	40	60	70	75	80	85	90	95	100	109	110	115	120	125	SUM
0																
7		_								1		,	1			10
5		2	3		3	3 1	1	1	1		1 2	1	•			10 7
2		•	2		1	i	-	1	·	1	_				1	
7					1		1	1		1		1	1	ı		i
3																
) S M		3	•		•	,	2	•	1	3	4	3	2	1	1	41
	7.8	11.6	9.0	4.5	0,3	21.2	29.1	19.0	27.2	27.7	10.3	5.2	11.5	1.3	. 7	192.0

												· · ·				
	NZE	PEAKS	FOR VEL	VS NZE	BY ALT	0	M15-5	EG STE	ADY							
2.4	LESS	40	60	70	75	60	85	90	95	100	105	110	115	120	125	SUM
2.0 1.8 1.7 1.6					1			1	2		1	2				5
1.4 1.3 1.2 0.8 0.7 0.6 0.5								1	3	1						6 2
UESS SUM	22.0	2.8	5,6	12.7	1 . 24.8	75.0	150.0	125.6	134.2	2 77,8	2 33.6	2 18.0	7,2	.6	0.0	17 690.9
11-2	22.60		,,,	•••	, = , • •					1						
				VS NZE		3000	M15-5			100	105	110	115	120	125	SUM
2.4 2.7 2.0 1.8 1.7 1.6 1.5	LESS.	40	60	70	79	80	•5	90	15	100	109	110	119	***		2
1.3 1.2 0.8 0.7 0.6 0.5 0.4 0.2 LESS 5UM								1		1	1					3
TIME	0.0	2.1	2.5	1.1	1.3	2.0	1.9	4.2	1.1	7,3	3.2	•1	0.0	0.0	0.0	35,5
	NZE	PEAKS	FOR VEL	VS NZE	BY ALT	3000	M15-5	EG DES	ENT							
2.4 2.2 2.0 1.8	LESS	40	●0	70	75	80	45	90	15	100	105	110	115	120	125	SUM
1.7 1.6 1.5 1.4 1.3 1.2 0.8 0.7 0.6 0.5		1	1					1	1	i						1 1 3
0.4		1	1					1	1	ı						,
SUM								3.1	4.7	3.3	.7	10.8	12.0	0.0	0.0	38.1

					TA	BLE	LXX	11 .	- Co	nclu	ided					
	NZE	PEAK5	FOR VEL	. VS NZE	E BY ALT	6000	#15 - 5	EG ASC	ENT							
	LESS	40	60	70	75	.0	85	90	95	100	105	110	115	120	125	SUM
2.4 2.2 2.0 1.8 1.7 1.6																
1.4 1.3 1.2 0.8 0.7 0.6 0.5			1													:
U-2 LESS SUM			1													
IME	0.0	•1	.3	.9	.3	.6	•1	1.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	4.
	NZE	PEAKS	FOR VEL	VS NZE	5UM											
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	125	SUM
2.2																
2.0					1	_	1		2	2	1					12
1.7		4	4	1	9	3	11	1	4	9	6	2				55
1.5	1	4	8	2	5	12	11	14 21	22 15	10	11	•	2	1		104
1.4	3	5	8 7	5	11	•	5	29	15	9	6	5	1	i	1	110
1.2	5	3	6	1	7	5	,			•	3	1	1			
0.8		1	1	2	4	3	•	7	2	•	1	3	1	1		30
0.6		i	•	_	2		1	1								1
0.5								•								
0.2																
LESS SUM	9	27	34	14	43	47	58	84	65	52	35	21	6	3	1	499
		161.2			177.5	336,9	514.8	450.0	012.3	863.8	534.6	371.5	200.0	24.0	.4	5307.0

APPENDIX II FCR TABULAR DATA PRESENTATION

Tables LXXIII through CXIII present the 36 hours of operational data processed by the FCR technique.

Four tabular formats present the flight time among the coincident ranges of ten parameters and the frequency of acceleration peaks distributed among the coincident ranges of other variables. All tabular formats are presented by mission segment for each flight condition. All times shown were rounded to the nearest tenth of a minute. Since in each subtable the total under the time column was computed and then rounded, a total may not agree with the sum of the rounded times in each line. Times between 0 and 0.05 minute were printed as ".0", and times equal to zero were printed as "0.0". Tables having neither occurrences nor time were not printed. All printed range values are the lower limits.

Tables LXXIII through LXXXVIII present time for coincident parameter values. Wherever a flight condition has more than one set of values, such a flight condition has multiple entries.

Tables XCIII through CXIII summarize the occurrence and duration of normal load factors for each flight condition. For example, Table CII for the left turn, level flight condition shows that 6 left turns had maximum load factor peaks between 1.2g and 1.3g, that 15 left turns had maximum load factor peaks between 1.1g and 1.2g, and that these 21 left turns had 10 additional load factor peaks, 9 between 1.1g and 1.2g and 1 between 0.8g and 0.9g.

TABLE LXXIII. TIME FOR TAKEOFF DISTRIBUTED IN RANGES OF TEN
PARAMETERS BY MISSION SEGMENT AND GROSS WEIGHT

							and the second second		***	- I
TAKE	OFF	,	HOVER.		7	000 LB				
VEL	RPM	TORO	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	284	10	-300	20	0	-3	~100	-100	-100	.38
BLW	314	10	-1200	0	-3000	-3	-100	-100	200	.07
BLW	314	10	-600	-20	-3000	-6	-100	-100	250	.07
BLW	314	10	-600	-20	-3000	3	-100	-100	200	•05
BLW	314	10	-600	-20	-3000 BELOW	3 -3	-100 -100	-100	250 100	•09
BLW BLW	314 314	10 10	-300 -300	-80 -40	-6000	-3	-100	-100 -100	200	•07 •05
BLW	314	10	-300	0	-3000	-9	-100	-100	-100	.05
BLW	314	10	-300	ŏ	-3000	-6	-100	-100	150	.07
BLW	314	10	-300	0	-3000	-3	-100	-100	-200	.07
BLW	314	10	-300	0	0	-3	-100	-100	150	.14
BLW	314	10	-300	20	0	-3	-100	-100	150	•21
BLW	314	20	-300	-80	BELOW	-3	-100	-100	-100	•02
BLW	314	20	-300	-60	-6000 -3000	-3 -3	-100 -100	-100 -100	-100 -100	•09 •16
BLW BLW	314 314	20 20	-300 -300	0	-3000	-3	-100	-100	-100	.14
BLW	314	30	-300	-80	BELOW	-3	-100	-100	-100	.17
BLW	325	10	-600	-20	-3000	-3	-100	-100	150	•05
BLW	325	10	-300	-60	-6000	-3	-100	-100	150	.09
BLW	325	10	-300	-40	-6000	-3	-100	-100	250	.07
BLW	325	10	-300	-20	-6000	-3	-100	-100	250	• 36
BLW	325	20	-600	-20	-3000	-12	-100	-100	-100	•02
BLW	325	20	-600	-20	-3000	3	-100	-100	-100	•05
BLW BLW	325 325	20 30	-300 -300	-60 -20	-6000 -6000	-3 -3	-100 -100	-100 -100	-100 -100	•07
BLW	334	10	-300	-40	-6000	-3	-100	- 100	200	.19
BLW	334	10	-300	-20	-3000	-3	-100	-100	300	.17
BLW	334	20	-300	-40	-6000	-3	-100	-100	-100	.28
BLW	334	30	-300	-40	-6000	-3	-100	-100	-100	.03
BLW	334	30	-300	-40	-6000	-3	100	-100	-100	• 05
BLW	334	30	-300	-20	-6000	-3	-100	-100	-100	•09
TAK	FOFF	•	HOVER	ĵ.	8	000 LB				
VFL	RPM	TORO	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	294	10	-300	-60	-6000	-3	-100	-100	100	•08
BLW	304	10	-300	-40	-6000	-3	-100	-100	100	.08
BLW	304	10	-300	20	-3000	-3	-100	-100	200	.25
BLW	314	10	-300	-60	BELOW	-3	-100	-100	100	.14
BLW	314	10	-300	-60	-6000	-3	-100	-100	150	•12
BLW	314	10	-300 -300	-40	-6000	-3	-100	-100	100	•09
BLW BLW	314 314	10 10	-300 -300	-40 0	-6000 -3000	-3	-100	-100	150	•22
BLW	314	10	-300	0	-3000	-3 -3	-100 -100	-100 -100	100	-15
BLW	314	10	-300	ŏ	-3000	-3	-100	-100	250 300	.10
BLW	314	10	-300	ŏ	-3000	3	-100	-100	300	.08
BLW	314	10	-300	20	0	-3	-150	-100	-100	.12
BLW	314	10	-300	20	0	- 3	-100	-100	200	.07
BLW	314	10	-300	20	0	-3	-100	-100	250	.05
BLW BLW	314 314	10 20	-300 -900	20	-4000	-3	-100	-100	300	-15
BLW	314	20	-900 -300	-20 -60	-6000 -6000	-3 -3	-100 -100	-100 -100	150	•09
BLW	314	20	-300	-40	-6000	-3	-100	-100	-100 -100	•09
BLW	314	20	-300	20	Ö	-3	-100	-100	-100	.08

TABLE LXXIII - Continued

1 AKE	OFF.	_ 1	IOVER.		80	00 LB	(CONT)	(a Junt		
VEL.W BLW BLW BLW BLW BLW BLW BLW BLW BLW BL	RPM TO 314 314 325 325 325 325 325 325 334 334 334 314 314 314 325 325	RQ 30 10 10 10 10 20 30 10 20 30 10 20 20 30 10 20 20 30 10 10 20 20 30 10 20 20 30 10 20 20 20 20 20 20 20 20 20 20 20 20 20	R/C -300 -300 -300 -300 -300 -300 -300 -30	OAT 20 20 -40 0 0 -40 -60 -60 -60 -40 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ALT 00 -3000 -6000 -3000 -3000 -6000 -6000 -6000 -6000 -6000 -6000 -6000 -6000 -3000 -3000	A/S ACC -6 3 -3 -3 -3 -3 -3 -3 -3 -6 -6 -6 -3 -3 -3	CY-LNG -100 -100 -100 -100 -100 -100 -100 -10	(Y-LAT -100 -100 -100 -100 -100 -100 -100 -10	COLL -100 -100 250 200 100 150 -100 -100 -100	TIME .07 .15 .22 .16 .16 .12 .22 .05 .09 .07 .05 .07 .05 .07
	FOFF•		HOVER•		9	000 LB				
V B B B B B B B B B B B B B B B B B B B	314 314 314 314 314 314 314 314 314 314	10 10 10 10 10 10 10 20 20 20 20 20 20 20 20 20 20 20 20 20	R/C -600 -300 -	OAT 20 -40 -20 0 20 20 -60 -80 -60 -60 -60 -60 -40 0	ALT -3000 -6000 -3000 -3000 -3000 -3000 -3000 -3000 -3000 -3000 -6000 BELOW BELOW BELOW BELOW -6000 -3000 BELOW BELOW -6000 -3000 BELOW -6000 -3000 BELOW -6000 -3000 -6000 -3000 -3000 -3000 -3000 -3000 -3000 -3000 -3000	A/5 ACC -3 -3 -3 -3 -3 -3 -3 -3 -3	CY-LNG -100 -100 -100 -100 -100 -100 -100 -10	CY-LAT -100 -100 -100 -100 -100 -100 -100 -10	300 250 350 350 350 300 150 -100 -100 -100 -100 -100 -100 -10	TIME 116 114 115 100 100 100 112 109 109 109 109 113 100 107 109 107 109 107 109 107 109 109 109 109 109 109 109 109

TABLE LXXIII - Concluded

	FOFF	•	ASCEN	т•	6	000 LB				
VEL	PPM		RIC	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIM
BEA	314	10	-600	-40	-3000	-3	-100	-100	150	.09
BLW	314	10	-300	-60	-6000	-3	-100	-100	100	.09
BLW	314	30	-600	-40	-3000	3	-100	-100	-100	-10
BLW	314	30 40	-300 -300	-60	-6000	-3	-100	-100	-100	.09
. D T	-1.7	••	-300	-60	-6000	-3	-100	-100	-100	•09
TAK	EOFF	. 450	FNT.		7000	LB				
VEL	RPM	TORO	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	10	-900	-40	-6000	3	-100	-100	150	.03
BLW	314	10	-900	-20	-3000	-3	-100	-100	150	.08
BLW	314	10	-300	-60	-6000	-3	-100	-100	100	.40
BLW	314	10	-300	-60	-6000	-3	-100	-100	150	.09
BLW	314	10	-300 -300	-40	-3000	-3	-100	-100	150	.09
BLW	314	10	-300	-20	-3000	-3	-100	-100	250	.09
BLW	314	10	-300	0	-3000	-3	-100	-100	-150	•12
BLW	314	10	-300	Ö	-3000 -3000	-3	-100	-100	-100	.19
BLW	314	20	-300	ŏ	-3000	-3	-100	-100	200	•09
BLW	314	20	300	-60	-6000	-3 -3	-100 -100	-100	250	.07
BLW	325	10	-300	Ö	-3000	-3	-100	-100 -100	-100	-05
BLW	325	10	-300	20	0	-3	-100	-100	100 250	.07
TAKE	OFF.	ASC	ENT.		8000 L	_B				
VFL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	10	-600	0	-3000	-6	-100	-100	350	.05
	314	10	-600	0	-3000	-3	-100	-100	150	.07
The second second										
Bi.W	314	10	-600	0	-3000	-3	-100	-100	300	-07
BLW BLW	314	10	-600	0	-3000	-3 3	-100 -100	-100 -100	300 300	•07
BLW BLW	314	10	-600 -300	0	-3000 -3000	-3 3 -3				.07
BLW BLW BLW BLW	314 314 314	10	-600 -300 -300	0	-3000 -3000 0	-3 3 -3 -3	-100 -100 -100	-100	300	
BLW BLW BLW BLW BLW	314 314 314 314	10 10 10	-600 -300 -300 -300	0 0 0	-3000 -3000 0	-3 3 -3 -3	-100 -100 -100 -100	-100 -100 -100 -100	300 300	.07 .24
BLW BLW BLW BLW	314 314 314	10 10 10 10	-600 -300 -300 -300 -300	0 0 0 0	-3000 -3000 0 0 -3000	-3 3 -3 -3 -3	-100 -100 -100 -100 -100	-100 -100 -100 -100 -100	300 300 150 300 -100	.07 .24 .08 .08
BLW BLW BLW BLW BLW BLW BLW	314 314 314 314 325	10 10 10	-600 -300 -300 -300	0 0 0	-3000 -3000 0	-3 3 -3 -3	-100 -100 -100 -100	-100 -100 -100 -100	300 300 150 300	.07 .24 .08
BLW BLW BLW BLW BLW BLW BLW	314 314 314 314 325	10 10 10 10 10 20	-600 -300 -300 -300 -300	0 0 0 0	-3000 -3000 0 0 -3000	-3 -3 -3 -3 -3 -3	-100 -100 -100 -100 -100	-100 -100 -100 -100 -100	300 300 150 300 -100	.07 .24 .08 .08
BLW BLW BLW BLW BLW BLW AKE	314 314 314 314 325 325 OFF •	10 10 10 10 10 20 ASCE	-600 -300 -300 -300 -300 -300 -300	0 0 0 0	-3000 -3000 0 0 -3000 -3000	-3 -3 -3 -3 -3 -3	-100 -100 -100 -100 -100 -100	-100 -100 -100 -100 -100	300 300 150 300 -100 -100	.07 .24 .08 .08 .10
BLW BLW BLW BLW BLW BLW BLW VFL BLW	314 314 314 314 325 325 325 OFF• RPM 314	10 10 10 10 10 20 ASCE TORO	-600 -300 -300 -300 -300 -300 -300	0 0 0 0 0 0	-3000 -3000 0 -3000 -3000	-3 -3 -3 -3 -3 -3 -6	-100 -100 -100 -100 -100 -100	-100 -100 -100 -100 -100 -100	300 300 150 300 -100 -100	.07 .24 .08 .08 .10 .07
BLW BLW BLW BLW BLW BLW BLW BLW BLW BLW	314 314 314 314 325 325 325 OFF• RPM 314 314	10 10 10 10 10 20 ASCE TORO 10	-600 -300 -300 -300 -300 -300 -300 -300	0 0 0 0 0 0	-3000 -3000 0 -3000 -3000 9000 L	-3 -3 -3 -3 -3 -6	-100 -100 -100 -100 -100 -100	-100 -100 -100 -100 -100 -100	300 300 150 300 -100 -100	.07 .24 .08 .08 .10 .07
BLW BLW BLW BLW BLW BLW BLW BLW BLW BLW	314 314 314 314 325 325 325 OFF • RPM 314 314	10 10 10 10 20 A S C E TORO 10 10	-600 -300 -300 -300 -300 -300 -300 ENT •	0 0 0 0 0 0 0	-3000 -3000 0 0 -3000 -3000 9000 L ALT 0 0 -3000	-3 -3 -3 -3 -3 -6 -6 -6 -8 -3 -3	-100 -100 -100 -100 -100 -100 -100	-100 -100 -100 -100 -100 -100 -100	300 300 150 300 -100 -100	.07 .24 .08 .08 .10 .07
BLW BLW BLW BLW BLW BLW BLW BLW BLW BLW	314 314 314 314 315 325 325 OFF• RPM 314 314 314	10 10 10 10 20 A S C E TORO 10 10	-600 -300 -300 -300 -300 -300 -300 -900 -300 -3	OAT 20 0 0	-3000 -3000 0 0 -3000 -3000 -3000 L ALT 0 0 -3000 -3000	-3 -3 -3 -3 -3 -6 -6 -8 -3 -3 -3	-100 -100 -100 -100 -100 -100 -100 -100	-100 -100 -100 -100 -100 -100 -100	300 300 150 300 -100 -100	.07 .24 .08 .08 .10 .07
BLW BLW BLW BLW BLW BLW BLW BLW BLW BLW	314 314 314 314 325 325 325 OFF • RPM 314 314	10 10 10 10 20 A S C E TORO 10 10	-600 -300 -300 -300 -300 -300 -300 ENT •	0 0 0 0 0 0 0	-3000 -3000 0 0 -3000 -3000 9000 L ALT 0 0 -3000	-3 -3 -3 -3 -3 -6 -6 -6 -8 -3 -3	-100 -100 -100 -100 -100 -100 -100 -100	-100 -100 -100 -100 -100 -100 -100	300 300 150 300 -100 -100	*07 *24 *08 *08 *10 *07

TABLE LXXIV. TIME FOR GROUND TAXI DISTRIBUTED IN RANGES OF TEN PARAMETERS BY MISSION SEGMENT AND GROSS WEIGHT

GROU	JND T		GRD C	DNDII	ION, 7						
٧٠	RPM	TORO	R/C	OAT	ALT			CY-LNG	CY-LAT	COLL	TIME
BLW	314	10	-300	-60	-6000		- 3	-100	-100	150	.14
BLW	314	10	-300	-60	-6000		-3	-100	-100	200	.14
BLW	314	20	-300	-60	BELOW		- 3	-100	-100	-100	.17
BLW	314 314	20 20	-300 -300	-60 -60	-6000 -6000		-3 -3	-100 -100	-100 -100	-100 100	•65 •07
BLW	314	20	300	-20	-3000		-3	-100	-100	-100	•09
BLW	314	30	300	-20	-3000		-3	-100	-100	-100	.07
BLW	325	20	-300	-60	-6000		-3	-100	-100	100	.26
BLW	325	20	-300	-40	-3000		- 3	-100	-100	-100	.17
BLW	325	30	-300	-80	BELOW	•	- 3	-100	-100	-100	.41
BLW	325	30	-300	-40	-3000		- 3	-100	-100	-100	.22
BLW	314	10	-300	-80	BELOW		- 3				.26
BLW	314	20	-300	-80	BELOW		- 3				• 55
BLW	314	30	-300	-80	BELOW	•	- 3				•09
GROU	JND T.	AXI•	GRD CO	NDIT	ION. A	000	LR				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S	ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	10	-300	Ö	-3000		-3	-100	-100	-100	.33
BLW	314	20	-300	-60	BELOW	•	- 3	-100	-106	-100	.26
BLW	314	20	-300	-60	BELOW		- 3	100	-100	-100	•47
BLW	314	20	-300	0	-3000		- 3	-100	-100	-100	.26
BLW	314	30	-300	-80	BELOW		- 3	-100	-100	-100	•31
BLW	314	30	-300	-60	BELOW		-3	-100	-100	-100	•10
BLW	314	30 10	-300 -300	0	-3000		-3 -3	-100	-100 -100	-100 100	•09 •12
BLW	325 325	20	-300	0 20	-3000 0		- 3	-100 -100	-100	-100	• 52
BLW	325	30	-300	20	-3000		-3	-100	-100	-100	.63
BLW	325	30	-300	40	-3000		-3	-100	-100	-100	.47
BLW	325	10	-300	-40	-6000		-3		•••	•	.09
BLW	325	20	-300	-40	-6000		- 3				.34
BLW	325	20	-300	-40	-6000		- 3				.14
BLW	325	30	-300	-40	-6000	•	- 3				•16
ROL	IND TA	AXI•	GRD CO	NDITI	ON + 9	000 L	B				
/EL	RPM	TORQ	R/C	OAT	ALT	A/S A	cc (Y-LNG	CY-LAT	COLL	TIME
LW	314	10	-360	-60	-6000	-	3	-100	-100	150	.17
LW	314	20	-300	-60	-6000	-		-100	-100	100	.17
LW	325	20	-300	-80	BELOW	-		-100	-100	150	.21
3LW	325	30	-300	-80	BELOW	-	3	-100	-100	-100	•65

TABLE LXXV. TIME FOR INITIATION OF ASCENT DISTRIBUTED IN RANGES OF TEN PARAMETERS BY MISSION SEGMENT AND GROSS WEIGHT

									Service Stat	
INIT	IATIO	ON OF	ASCENT		OVER.		700	O LP		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	20	-300	-60	-6000	-3	-100	-100	100	.09
BLW	314	20	-300	0	-3000	-6	-100	-100	-100	.08
BLW	314	30	-300	-60	-6000	-3	-100	-100	-100	•21
BLW	314	30	-300	-20	-3000	3	-100	-100	-100	•07
BLW	314	30	-300	-20	-3000	3	100	-100	-100	• 09
BLW	314	30	-300	-20	-3000	9	150	-100	-100	•03
BLW	314	30	-300	0	-3000	-6	-100	-100	-100	•08
BLW	314	30	-300	0	-3000	-3	-100 -100	-100 -100	-100 -100	•08 •17
BLW	314	30	-300 -300	0	-3000 -3000	3 6	-100	-100	-100	.08
BLW	314 314	30 30	-300	ŏ	-3000	6	100	-100	-100	.05
BLW	314	30	-300	ŏ	0	-3	-100	-100	-100	.16
BLW	314	30	-300	ŏ	Ŏ	6	-100	-100	-100	•05
BLW	314	40	-300	-40	-6000	3	-100	-100	-100	•07
BLW	325	20	-300	-20	-3000	-3	100	100	-100	•09
BLW	325	30	-300	-60	-6000	-3	-100	-100	-100	.14
BLW	325	30	-300	-60	-6000	-3	100	-100	-100	•05
BLW	325	30	-300	-60	-6000	3	100	-100	-100	•09 •09
BLW	325	30	-300 -300	-20 -20	-3000 -6000	-3 -3	-100 -100	-100 -100	-100 -100	.12
BLW	334 334	20 30	-300	-20	-3000	-3	-100	-100	-100	.26
BLW	334	30	600	-40	-6000	3	-100	-100	-100	.19
BLW	334	40	-300	-20	-3000	3	-100	-100	-100	•07
40	314	30	-300	-20	-3000	9	150	-100	-100	•03
<u> </u>										
INIT	TATIO	ON OF	ASCENT		OVER.		800	0 LB		
VEL	RPM	TORQ								
BLW	294	40	R/C 300	OAT 20	ALT -3000	A/S ACC	-100	-100	COLL -100	TIME •03
BLW	304	30	300	20	-3000	3	-100	-100	-100	.13
BLW	304	40	300	20	-3000	3	-100	-100	-100	.07
BLW	314	20	-300	0	-3000	-3	-100	-100	-100	•07
BLW	314	30	-300	-40	-6000	6	-100	-100	-100	•09
BLW	314	30	-300	0	-3000	3	-100	-100	-100	•05
BLW	314	30	300	20	0	-3	-100	-100	-100	•03
BLW	314	30	300	20	0	3	-100	-100	-100	-08
BLW BLW	314 314	40 40	-300 300	-60 -60	BELOW -6000	-3 -3	-100 -100	-100 -100	-100 -100	•09 •15
BLW	325	30	-300	20	-3000	6	-100	-100	-100	14
BLW	325	30	300	-20	-3000	-3	-100	-100	-100	.09
BLW	325	30	300	-20	-3000	3	150	-100	-100	.03
BLW	325	30	600	-40	-6000	-3	-100	-100	-100	0.00
BLW	325	30	600	-40	-6000	3	-100	-100	-100	•07
BLW	334	40	-900	-60	-6000	-3	-100	-100	-100	•05
40	314	30	-300	-40	-6000	3	100	-100	-100	•09
40	325 325	30	-600 -600	-40 -40	-6000 -6000	-3 3	-100 -100	-100 -100	-100 -100	.03
40 40	325	40 40	600	-40	-6000	3	-100	-100	-100	.12
BLW	314	20	-300	-60	-6000	3	- 100		.00	.05
BLW	314	30	-300	-60	-6000	-3				•05
BLW	314	30	-300	-60	-6000	3				-05
BLW	314	40	-300	-60	-6000	6				•10
BLW	314	40	300	-40	-6000	-9				•09
RLW	314	40	300 300	-40 -40	-6000 -6000	6				•03
ALW BLW	325	40 40	900	-40	-3000	-3	-100	-100	-100	.09
17EW								.00	-100	

TABLE LXXV - Continued

INIT	TATI	ON OF	ASCENT		OVER.		900	O LB		
		O-4 C-1	A JCI, N	•	, V L. 1\ V					
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC		CY-LAT	COLL	TIME
BLW	314	30	-300	-20	-3000	3	-100	-100	-100	.08
BLW	314	30	-300	0	-3000	3	-100	-100	-100	•10
BLW	314	30	-300	20	-3000	-3	-100	-100	-100	•09
BLW	314	30	300	0	-3000	-3	-100	-100	-100	•09
BLW	314	30	600 600	-20 0	-3000 -3000	-3 -3	-100 -100	-100	-100	•09
BLW BLW	314 314	30 30	600	0	-3000	-5	100	-100 -100	-100 -100	•14 •07
BLW	314	30	900	ŏ	-3000	-3	-100	-100	-100	•03
BLW	314	30	900	ŏ	-3000	6	-100	-100	-100	.14
BLW	314	40	300	-60	BELOW	-3	-100	-100	-100	•03
BLW	314	40	300	-40	-6000	-3	-100	-100	-100	.14
BLW	325	30	-300	-20	-3000	3	-100	-100	-100	.12
BLW	325	30	-300	0	-3000	-3	-100	-100	-100	.07
BLW	325	40	-300	-80	BELOW	-3	-100	-100	-100	.07
BLW	325	40	-300	-60	BELOW	-3	-100	-100	-100	.03
BLW	325	40	-300	-40	BELOW	-3	-100	-100	-100	•03
BLW	325	40	300	-40	-6000	-3	-100	-100	-100	•09
BLW	325	50	-300	-60	BELOW	-6	-100	-100	-100	• 02
BLW	325	50	-300	-60	BELOW	3	-100	-100	-100	•03
BLW	325	50	-300	-60	BELOW	3	100	-100	-100	•03
BLW	325	50	-300	-40	BELOW	-3	-100	-100	-100	.14
		041 05	ACCENT		CCCNT		700			
1.411	IAII	ON OF	ASCFN1	• /	SCENT	•	700	O LB		
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	20	-300	-60	-6000	-3	-100	-100	-100	.11
BLW	314	20	-300	0	-3000	-3	-100	-100	-100	•10
BLW	314	20	300	-60	-6000	-3	-100	-100	-100	•05
BLW	314	20	300	-20	-3000	-3	-100	-100	-100	•17
BLW	314	20	900	-40	-6000	-3	-100	-100	-100	•09
BLW	314	30	-300	-60	-6000	-3	-100	-100	-100	•12
BLW	314 314	30 30	-300 -300	-60 -60	-6000	3	-100 -100	-100	-100	•13
BLW BLW	314	30	-300	-80	-6000 -3000	6	-100	-100 -100	-100 -100	•09
BLW	314	30	300	-80	BELOW	9	-100	-100	-100	.07
BLW	314	30	300	-20	-3000	6	-10	-100	-100	.05
BLW	314	40	-300	-60	-6000	-3	-100	-100	-100	.18
BLW	314	40	300	-60	-6000	6	-100	-100	-100	.09
BLW	314	40	900	-40	-6000	6	-100	-100	-100	.03
BLW	325	20	300	0	-3000	-3	-100	-100	-100	.16
BLW	325	30	300	-20	-3000	-3	-100	-100	-100	•11
40	314	30	300	-20	-3000	6	-100	-100	-100	•04
40	314	40	300	-80	BELOW	3	100	-100	-100	•07
40	314	40	300	-20	~3000	-3	100	-100	-100	•03
40	314	40	300	-20	-3000	3	-100	-100	-100	•09
60	314	30	300	-20	-3000	6	100	-100	-100	•04
60	314	40	300	-80	BELOW	3	100	-100	-100	•07
										1
										1

TABLE LXXV - Concluded INITIATION OF ASCENT+ 8000 LB ASCENT. RPM R/C 300 COLL TIME TORQ ALT A/S ACC CY-LNG CY-LAT VEL OAT 10 -3000 -100 .05 314 0 -3 -100 -100 BLW -3000 -100 -300 3 -100 -100 .08 BLW 314 20 0 .14 BLW 314 20 -300 0 0 -100 -100 -100 -300 0 -3000 -100 -100 -100 .10 314 30 6 BLW -3000 -100 .07 -300 -3 -100 -100 BLW 314 40 0 BLW 325 30 -300 0 -3000 3 -100 -100 -100 .07 ASCENT . 9000 LB INITIATION OF ASCENT+ ALT A/S ACC CY-LNG CY-LAT TORQ R/C OAT COLL TIME VEL RPM 314 20 -300 20 0 3 -100 -100 -100 .12 BLW .05 -300 0 -3000 -3 -100 -100 -100 BLW 314 30 -3000 -100 -300 n 3 -100 -100 .12 BLW 314 30 BLW 314 30 -300 20 0 -3 150 -100 -100 .05 .03 -300 20 0 150 -100 -100 3 BLW 314 30 -80 -100 -100 BELOW -100 .10 600 BLW 325 40 -3 BELOW BLW 325 40 600 -80 3 100 -100 -100 .05 325 40 600 -80 BELOW 100 -100 -100 .14 40

TABLE LXXVI. TIME FOR LEFT TURN DISTRIBUTED IN RANGES OF TEN PARAMETERS BY MISSION SEGMENT AND GROSS WEIGHT

LEFT	TUR	N •	HOVER.		700	00 LB				
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC		CY-LAT	COLL	TIME
BLW	314	30	-300	-40	BELOW	-3	-100	-100	-100	.43
BLW	314	30	-300	20	-3000	-3	-100	-150	-100	.08
BLW	314	30	-300	20	-3000	-3	-100	-100	-100	. 35
BLW	325	30	-300	-60	BELOW	-3	-100	-100	-100	.23
BLW	334	30	-300	-20	-6000	-3	-100	-100	-100	.39
LEFT	TUR	u	HOVER.		800	00 LB				
VEL	RPM	TORO	R/C	OAT	ALT		CY-LNG	CY-LAT	COLL	TIME
BLW	314	30	-300	-80	BELOW	-3	-100	-100	-100	.31
BLW	314	30	-300	-20	-6000	-6	150	-100	-100	.09
BLW	314	30	-300	-20	-6000	-3	100	-100	-100	.09
BLW	314	30	-300	-20	-6000	9	-100	-100	-100	.02
BLW	314	30	-300	0	-3000	-6	-150	-100	-100	.08
BLW	314	30	-300	0	-3000	-3	-100	-100	-100	.08
BLW	314	40	-300	-20	-6000	-3	100	-100	-100	.17
BLW	314	40	-300	-20	-6000	-3	150	-100	-100	.09
BLW	314	40	-300	-20	-6000	-3	200	-100	-100	.09
BLW	314	60	-300	-20	-6000	-3	100	-100	-100	.03
40	314	40	-300	-20	-6000	-3	100	-100	-100	.09
40	314	60	-300	-20	-6000	-3	100	-100	-100	.05
					••••			-10	-100	.05
LEFT	TUR	٧.	ASCENT.		700	00 LB				
VEL	RPM	TORO	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
40	314	30	300	-40	-3000	-3	-100	-100	-100	.17
60	314	20	-300	-40	-3000	-3	-100	-100	-100	.09
60	314	20	300	-40	-3000	-3	-100	-100	-100	.09
60	314	30	-300	-40	-3000	-3	-100	-100	-100	.17
60	314	30	-300	-40	-3000	-3	-100	100	-100	.09
60	314	30	-300	-40	-3000	3	-100	100	-100	.04
60	314	30	300	-40	-3000	-3	-100	-100	-100	.52
60	325	20	-300	-20	0	-3	-100	100	-100	.09
70	314	30	-300	-40	-3000	-3	-100	-100	-100	-09
70	314	30	-300	-40	-3000	-3	-100	100	-100	.09
70	314	30	-300	-40	-3000	3	-100	100	-100	.04
70	314	30	300	-40	-3000	-3	-100	-100	-100	.17
70	325	20	-300	-20	0	-6	-100	100	-100	.04
70	325	20	-300	-20	0	-3	-100	100	-100	.09
75	314	30	-300	-40	-3000	-3	-100	100	-100	-17
75	314	40	600	-60	-6000	-3	-100	-100	~100	-09
75	314	40	600	-40	-3000	-3	-100	-100	-100	.17
75	325	20	-300	-20	0	-6	-100	100	-100	.04
75	325	20	-300	-20	0	-3	-100	100	-100	.05
80	314	30	-300	-40	-3000	-6	-100	-100	-100	.04
80	314	30	-300	-40	-3000	-3	-100	-100	-100	.17
80	314	30	-300	-40	-3000	-3	-100	100	-100	.17
80	314	30	-300	-40	0	-3	-100	100	-100	
80	314	30	600	-40	-3000	-3	-100	-100	-100	.09
80	314	40	600	-60	-6000	-3	-100	-100	-100	.09
80	314	40	600	-40	-3000	-6	-100			.22
	325	20	-300	-20	- 5000	-3	-100	-100	-100	.04
80			-500	-60		-3	-100	150	-100	. 05
80		40	900	-60	-6000	- 1	100	-100		
80 80 85	325	40	900 -300	-60 -40	-6000 -3000	-3	100	-100 -100	-100	.09

TABLE LXXVI - Continued

			· · · · · · · · · · · · · · · · · · ·							
1			•				_	 .		
LEFT	TUE	N.	ASCENT	•	7 (900 LB	TACOL	INUED)		
		***	D 46	0.1	AL T	A / E A C C	CV-1 NC	CVIAT	COL 1	T145
VEL	RPM	TORQ 30	R/C -300	OAT	ALT -3000	A/5 ACC -3		CY-LAT	COLL -100	*19
85 85	314 314	30	-300	-40 -40	-3000	-3	-100 -100	-100 100	-100	•17
85	314	30	-300	-40	0	-3	-100	100	-100	.12
85	314	30	600	-40	-3000	-3	-100	-100	-100	.05
85	314	40	600	-60	-6000	-3	-100	-100	-100	.04
85	325	30	900	-60	-6000	-3	100	-100	-150	.05
85	325	40	900	-60	-6000	-3	100	-100	-100	•09
90	314	30	-300	-40	-3000	-6	-100	-100	-100	•04
90 90	314	30 30	-300 -300	-40 -40	-3000 -3000	-3 -3	-100 -100	-100 100	-100 -100	•09 •09
90	314	30	-300	-40	-3000	-3	-100	100	-100	•09
90	314	40	600	-60	-6000	-3	-100	-100	-100	•05
90	314	40	·^0	-40	-3000	-6	-100	-100	-100	.04
90	325	40	900	-60	-6000	-3	100	-100	-100	•09
95	314	30	-300	-40	-3000	-6	-100	-100	-100	•04
95	314	30	-300 -300	-40	-3000	-3 -3	-100	-100	-100	•17
95 95	314 314	30 40	-300 600	-40 -40	-3000	-3 -3	-100 -100	100 -100	-100 -100	•03 •09
105	314	30	300	-40	-6000	-3	100	100	-150	•09
105	314	30	300	-20	-6000	-3	100	100	-150	•03
110	314	30	300	-40	-6000	-3	150	-100	-100	.09
110	314	30	300	-20	-6000	-3	150	-100	-100	•09
110	325	30	300	-20	-6000	-3	100	100	-100	•09
i										
LEFT	TUR	M -	ASCENT.		800	00 LB				
VEL 60	RPM 325	TORQ 30	R/C 300	0AT -80	ALT BELOW	A/5 ACC -3	-100	CY-LAT -100	COLL -100	TIME •13
70	325	. 40	300	-80	BELOW	-3	100	-100	-100	.23
75	325	40	300	-80	BELOW	-3	-100	-100	-100	•05
[
					000					
LEFT	TUP	N •	ASCENT.		400	OO LB				
VEL	RPM	TORO	R/C	DAT	ALT	A/S ACC		CY-LAT	COLL	TIME
60	325	40	300 600	-80 -80	BELOW	-3 -3	1, 2	-100	-100	•29
60 70	325 314	40 20	-300	-80	BELOW -3000	-3	-100 -100	-100 -100	-100 -100	.11
70	314	30	-300	ŏ	-3000	-3	100	-100	-100	.09
70	314	30	-300	Ö	-3000	-3	150	-100	-100	.17
70	314	30	-300	0	-3000	-3	200	-100	-100	.09
70	325	40	600	-80	BELOW	-3	-100	-100	-100	•02
70 75	325	40	600	-80 0	BELOW	-3 -3	100	-100	-100	-18
75 75	314 314	20 20	-300 -300	0	-3000 -3000	-3	-100 100	-100 100	-100 -100	•09
75	314	30	-300	ŏ	-3000	-3	100	~100	-100	•10
75	314	30	-300	ŏ	-3000	-3	150	-100	-100	.09
75	314	30	-300	0	-3000	-3	150	100	-100	.05
75	314	40	600	-60	-6000	-3	-100	-100	-100	.26
75	314	40	600	-60	-6000	-3	100	-100	-100	•09
80	314	40	600 600	-60 -60	-6000	-3	-100	100	-100	•09
80 80	314 314	40 40	600	-60	-6000 -6000	-3 -3	100 100	-100 100	-100 -100	•09
90	314	40	300	-60	BELOW	-3	200	-100	-150	.09

TABLE LXXVI - Continued

LEFT	TUF	, v1 •	ASCEN	1T •	9(000 LR	TACOL	INUED)		
VEL	RPM	TORO	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
90	314	40	300	-60	BELOW	-3	200	-100	-100	•09
95	314	40	300	-60	BELOW	-3	150	-100	-100	.04
95	314	40	300	-40	BELOW	-3	200	-100	-100	•09
95	314	40	300	-40	-6000	-3	150	-100	-150	•09
100	314	40	300	-60	BELOW	-3 -3	150 150	100 100	-100 -150	•04 •09
100	314	40	300 -300	-40 -40	-6000 -6000	-3	150	-100	-150 -150	•09
105 105	314 314	40	-300	-40	-6000	-3	150	-100	-100	•17
105	314	40	-300	-40	-6000	-3	150	100	-100	.12
105	314	40	300	-40	-6000	-3	150	100	-150	•09
105	314	40	300	-40	-6000	- 3	150	100	-100	.09
105	314	40	300	-40	-6000	- 3	200	-100	-100	.09
110	314	40	-300	-40	-6000	-3	150	-100	-100	•17
LEFT	TUR	!N •	LEVEL	FLIGH1	60	00 LB				
VEL	RPM	TORQ	R/C	OAT	ALT		CY-LNG	CY-LAT	COLL	TIME
40	314	20	-300	-80	-6000	-3	-100	-100	-100	•21
40	314	20	-300	-60	-6000	-3	-100	-100	-100	•27
40	314	30	-300	-60	-6000	-3	-100	-100	-100	-18
60	314	20	-300	-80	-6000	-3 -6	-100 -100	-100 -100	-100 -100	•15 •09
60	314	30 30	-300 -300	-80 -80	-6000 -6000	-3	-100	-100	-100	.27
60 60	314 314	30	-300	-60	-6000	-3	-100	-100	-100	.09
70	314	20	-300	-80	-6000	-3	-100	-100	-100	.18
70	314	30	-300	-80	-6000	-3	-100	-100	-100	• 05
75	314	30	-300	-80	BELOW	-3	-100	-100	-100	.09
75	314	30	-300	-80	-6000	-3	-100	-100	-100	«14
80	314	30	-300	-80	-6000	-3	-100	-100	-100	•09
LEFT	TURI	N •	l.FVEL	FLIGHT	• 700	00 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	20	-300	-80	-6000	-3	-100	-100	-100	• 20
BLW	314	20	-300	-40	-3000	-3	-100	-100	-100	.09
BLW	314	20	-300	-40	-3000	-3	100	-100	-100	.09
BLW	314	30	-300	-60	-6000	-3	-100	-100	-100	•09
BLW	314	30	-300	-60	-6000	-3	100	-100	-100	•09
BLW	314	36	-300	-60	-6000	3	-100	-100	-100	•09
BLW	314 314	30	-300 -300	-40 -40	-3000 -3000	-3 -3	-100 100	-100 -100	-100 -100	•23 •07
BLW 40	314	30 20	-300	-80	-6000	-6	-100	-100	-100	•07
40	314	20	-300	-80	-6000	-3	-100	-100	-100	•56
40	314	20	-300	-80	-6000	-3	-100	-100	100	.07
40	314	20	-300	-80	-6000	3	-100	-100	-100	.09
40	314	20	-300	-60	-6000	-3	-100	-100	-100	.09
40	314	30	-300	-60	-6000	-3	-100	-100	-100	.27
40	314	30	-300	-60	-6000	3	-100	-100	-100	•09
40	314	30	-300	-40	-6000	-3	-100	-100	-100	•09
40	314	30	-300	-40	-3000	-3	-100	-100	-100	•09
60 60	314 314	20 20	-300 -300	-80 -60	-6000 -6000	-3 -3	-100 -100	-100 -100	-100 -100	•18
80	214	20	-300	-60	-6000	• 5	-100	-100	-100	•16

TABLE LXXVI - Continued

				·						
LEFT	TUR	N •	LEVEL	FLIGH	T• 70	000 LB	(CONT I	NUED)		
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
60	314	30	-300	-60	-6000	-3	-100	-100	-100	.18
60	314	30	-300	0	6000	- 3	-100	-100	-100	.16
70	314	20	-300	-60	-6000	-3	-100	-100	-100	-18
70	314	30	-300	-60	-6000	-3	-100	-100	-100	•09
70	314	30	-300 -300	0	6000 6000	-3 -3	-100 -100	-100 -100	-100 -100	•09 •05
75 85	314 314	20 20	-300	0 -20	0	-3	-100	100	-100	.26
85	314	20	-300	0	ŏ	-3	-100	100	-100	•09
85	325	20	-300	-20	ŏ	-3	-100	100	-100	•05
85	325	20	-300	-20	0	-3	100	100	-100	.09
90	314	20	-300	-20	0	-3	-100	100	-100	.09
90	314	30	-900	-60	-3000	-3	-100	100	-150	•09
90	325	20	-300	-20	0	-3	-100	100	-100	•09
95	314	30	-900	-60	-3000	-3	-100	100	-150	-19
95 95	314 314	30 30	-600 -300	-60 -80	-3000 -6000	-3 -3	-100 -100	100 -100	-150 -100	•09 •16
95	314	30	-300	-80	-6000	-3	100	-100	-100	.09
95	314	30	-300	-60	-3000	-3	-100	100	-200	.24
95	314	30	-300	-60	0	-3	-100	100	-200	.19
95	314	30	300	-60	-3000	-3	-100	100	-200	•10
95	314	40	-300	-80	-6000	-3	-100	-100	-100	•09
95	314	40	-300	-80	-6000	-3	100	-100	-100	•09
95	314	40	-300	-60	0	-3	-100	100	-200	•09
95	325	30	-300 -600	-50 -60	-6000 -3000	-3 -3	-100 -100	-100 -100	-100 -150	•18 •17
100	314 314	30 40	-300	-60	-3000	-3	-100	-100	-200	.26
100	314	40	-300	-60	-3000	-3	-100	100	-200	.17
100	325	30	-300	-80	-6000	-3	100	-100	-100	.07
105	314	30	-300	-60	-3000	-3	-100	-100	-100	.14
105	314	30	-300	-60	-3000	-3	-100	100	-100	•09
105	314	40	-300	-60	-3000	-3	100	-100	-100	•09
110	314	30	-300	-60	-3000	-3	-100	-100	-100	•09
110	314 314	40	-300 -300	-60 -40	-3000 -3000	-3 -3	100	-100	-100	.09
105	314	30 30	-300	-40	-3000	-3				.09
105	314	30	-300	-40	-3000	-3				28
107		30	300	• • • •	3000					•••
1	=			£. • • · ·						1
LEFT	TUP	N •	LEVEL	FLIGHT		00 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
40	314	20	-300	-40	-6000	-3 -3	-100	-100	-100	•09
40	314 314	30 30	-300 -300	-40 -40	-6000 -6000	-3	100 150	-100 -100	-100 -100	.26
40	314	40	-300	-40	-6000	-3	100	-100	-100	.07
40	314	40	-300	-20	-6000	-3	150	-100	-100	.09
40	314	40	-300	-20	-6000	3	150	-100	-100	.09
60	314	20	-300	-40	-6000	-6	-100	-100	100	•09
60	314	20	-300	0	0	-3	100	-100	-100	•17
60	314	40	-300	-40	-6000	-3	150	-100	-100	•17
60	325	20	300 300	-80 90	, -3000	-3 -3	-100 -100	-100 -100	-100 -150	•09
60 70	325 314	40 20	300	-40	-3000 -6000	-3	100	-100	-100	•09
70	314	20	300	0	-3000	-3	150	-100	-100	.22
70	314	20	-230	ŏ	0	-3	100	-100	-100	.08
<u></u>										

TABLE LXXVI - Continued

LEFT	TUR	!N •	LEVEL	FLIGHT	r• 80	00 LB (CONTI	NUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
70	314	20	300	0	0	-3	-100	-100	-100	.08
70	314	30	-300	-40	-6000	-3	100	-100	-100	.43
70	314	30	-300	-40	-6000	-3	150	-100	-100	•09
70	314	30	-300	0	-3000	-3	150	-100	-100	•09
70	314	30	-300	0	0	-6	100	-100	-100	•04
70	325	20	-300	20	0	-3	100	-100	-100	.07
70	325	20	-300	20	0	-3	100	-100	100	•07
70	325	30	-300	-80	-3000	-3	-100	-100	-150	• 09
70 70	325 325	30	-300 300	-80 -80	-3000 -3000	-3 -3	-100 -100	-100 100	-100 -150	•04 •09
70	325	30 40	-300	-80	-3000	-3	-100	-100	-150	•09
70	325	40	-300	-80	-3000	-3	-100	-100	-100	•09
70	325	40	300	-80	-3000	-3	-100	-100	-150	.09
70	325	40	300	-80	-3000	-3	-100	-100	-100	•09
75	314	20	-300	0	-3000	-3	150	-100	-100	.33
75	314	20	-300	Ö	0	-3	100	-100	-100	.24
75	314	20	300	0	0	-3	100	-100	-100	.17
75	314	30	-300	-40	-6000	-3	100	-100	-100	•22
75	314	30	-300	-40	-6000	-3	150	-100	-100	•26
75	314	30	-300	0	-3000	-3	150	-100	-100	•09
75	314	30	-300	0	0	-6	150	-100	-100	•04
75	325	20	-300	20	0	-3	100	-100	-100	•12
75	325	30	-300	-80	-3000	-3	-100	-100	-100	•04
75 75	325 325	30	-300 300	-80 -80	-3000	-3 -3	-100	100	-150 -150	•09
75	325	30 30	300	-80	-3000 -3000	3	-100 -100	100 100	-150	•09 •04
75	325	40	-300	-80	-3000	-3	-100	-100	-150	.09
80	314	10	-300	0	0	-3	100	-100	-100	.07
80	314	20	-300	ŏ	-3000	-3	100	-100	-100	•17
80	314	20	-300	Ō	-3000	-3	150	-100	-100	.43
80	314	20	-300	0	0	-3	100	-100	-100	•34
80	314	30	-300	-40	-6000	-3	100	-100	-100	.16
80	314	30	-300	-40	-6000	-3	150	-100	-100	•09
80	314	30	-300	0	-3000	-3	150	-100	-100	•19
80	325	20	-300	-20	0	-3	-100	100	-100	•05
80	325	20	-300	C	0	-3	-100	100	-100	•09
80	325	20	-300	20	0	-3 -3	-100	-100	-100	•07
80 80	325 325	20 20	-300 -300	20 40	0	-3	100 -100	-100 -100	100 -100	•07
80	325	30	-300	-80	-3000	-3	-100	-100	-150	27
80	325	30	-300	-80	-3000	-3	-100	-100	-100	.04
80	325	40	-300	-80	-3000	-3	-100	-100	-150	.09
85	314	20	-300	0	-3000	-3	100	-100	-100	•52
85	314	20	-300	0	-3000	-3	150	-100	-100	•17
85	314	20	-300	0	0	- 3	-100	100	-100	.26
85	314	20	-300	0	0	-3	100	-100	-100	.17
85	314	30	-300	0	-3000	-3	150	-100	-100	•55
85	325	30	-300	-80	-3000	-3	-100	-100	-100	-16
85	325	40	-300	-80	-3000	-3	-100	-100	-150	•05
85	325	40	-300	-80	-3000	-3 -3	-100	-100	-100	•09
90 90	314 314	20 20	-300 -300	0	-3000 0	-3 -3	100	-100	-100	•19
90	314	40	-300	-80	-6000	-3 -3	-100 -100	100 -100	-100 -100	•09
90	314	40	-300	-40	-6000	-3	150	-100	-100	.09
70	317	70	- 300	-40	-0000	- 5	100	- 100	-100	• • • • •

TABLE LXXVI - Continued

				E. 7.611	T 0.4	200 10	4.CONT.	· AULIER S		
LEFT	TUR	N •	LFVEL	FLIGH	1 • 80	000 LB	(CONT.	NUEDI		
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
90	325	40	-300	-80	-3000	-3	-100	-100	-150	.09
95	314	30	-300	-60	-6000	-3	-100	-100	-100	.14
95	314	30	-300	-60	-3000	-3	-100	100	-200	•09
95	314	30	-300	-60	-3000	-3	-100	100	-150	•09
95	314	30	-300	-40	-6000	-3	-100	-100	-100	•17
95	314	30	-300	-40	-6000	-3	100	-100	-100	•09
95	314	30	-300	-40	-3000	-3	-100	-100	-100	•09
95 95	314	40 40	-300 -300	-80 -80	-6000 -3000	-3 -3	-100 -100	-100 -100	-100 -100	•26 •05
95	314	40	-300	-60	-3000	-3	-100	100	-150	•26
95	314	40	-300	-40	-6000	-3	100	100	-100	•09
95	325	40	-300	-60	-3000	-3	-100	100	-150	.29
100	314	30	-300	-60	-3000	-3	-100	100	-150	•09
100	314	30	-300	-40	-6000	-6	150	-100	-100	.04
100	314	30	-300	-40	-6000	-3	-100	-100	-100	•09
100	314	30	-300	20	- 3000	-3 -3	100	-100	-100	•07
100 100	314 314	40	-300 -300	-80 -80	-3000 -3000	-3	-100 100	-100 -100	-100 -100	•17 •09
100	314	40	-300	-60	-3000	-3	-100	-100	-150	.22
100	314	40	-300	-60	-3000	-3	-100	100	-150	.07
100	314	40	-300	-40	-6000	-3	150	100	-100	.07
100	325	40	-300	-60	-3000	-3	-100	-100	-150	•09
105	314	30	-300	-40	BELOW	-6	150	-100	-100	•04
105	314	30	-300	20	C	-3	100	-100	-100	• 35
105	314	40	-300	-40	BELOW	-3	150	-100	-100	•09
105	325	30	-300	20	0	-3	100	-100	-100	•43
105 110	325 314	30 40	-300 -300	20 -40	BELOW	-3 -3	150 150	-100 -100	-100 -100	•07
110	325	30	-300	20	0	-3	150	-100	-100	.07
100	314	30	300	-60	-6000	3	• • • •			•04
105	314	30	300	-60	-6000	-3				•09
105	314	30	300	-60	-6000	3				.04
110	314	30	300	-60	-6000	-3				•07
LEFT	TUR	N •	LFVEL	FLIGHT	• 90	00 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
	314	10	-300	0	0	-3	150	-100	-100	•03
	314	20	-300	0	0	-3	100	-100	-100	.09
	314	20	-300 -300	0	- 3000	-3	150	-100	-100	•09
	314 314	20 20	-300 -300	0	-3000 -3000	-3 -3	-100 -100	-100 100	-100 -100	•09 •17
	314	20	-300	0	-3000	-3	100	100	-100	.26
	314	20	-300	ŏ	0	-3	-100	100	-100	.10
	314	20	-300	ŏ	ŏ	-3	100	-100	-100	.09
	314	20	-300	Ŏ	Ö	-3	150	-100	-100	.17
	314	20	-300	0	0	-3	150	100	-100	.09
	314	20	-300	20	0	-3	100	-100	-100	.17
	314	20	-300	0	-3000	-3	-100	100	-100	•09
	314	20	-300	0	-3000	-3	100	-100	-100	•09
	314 314	20 20	-300 -300	0	-3000 0	-3 -3	100 100	100 -100	-100 -100	•09
	314	20	-300	ŏ	ŏ	-3	100	100	-100	•17
	314	20	-300	ŏ	ŏ	-3	150	-100	-100	.09
7.			- • •	•	-	-				

TABLE LXXVI - Continued

LEFT	TUR	N •	LFVFL	FL I GH	r• 90	00 FB	(CONT I	NUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
80	314	20	-300	0	0	-3	150	100	-100	.26
80	314	20	-300	20	0	-3	150	-100	-100	.17
80	314	20	-300	20	0	-3	150	100	-100	•10
85	314	20	-300	0	0	-3	100	-100	-100	•17
85	314	20	-300	0	0	-3	100	100	-100	•09
95	314	30	-300	-40	-6000	-3	100	-100	-100	•07
95	314	30	-300	-40 -40	-3000	-3 -3	-100 -100	-100 100	-100 -100	•21 •09
95 95	314 314	30 30	-300 -300	-40	-3000 -3000	-3	100	-100	-100	.17
100	314	30	-300	-40	-6000	-3	100	-100	-100	•52
100	314	30	-300	-40	-3000	-3	-100	-100	-100	.17
100	314	30	-300	-40	-3000	-3	-100	100	-100	•09
100	314	30	-300	-40	-3000	-3	100	-100	-100	.28
100	314	30	-300	-20	-3000	-3	-100	-100	-100	•09
100	314	30	-300	-20	-3000	-3	100	-100	-100	.17
100	314	40	-300	-40	BELOW	-3	150	-100	-100	•09
100	314	40	-300 -300	-40 -40	BELOW -6000	3 -3	150 150	-100 -100	-100 -100	•04
100	314 314	40	300	-40	BELOW	-3	150	-100	-100	.21
105	314	30	-300	-60	-6000	-3	-100	100	-100	.34
105	314	30	-300	-40	-6000	-3	100	-100	-100	.09
105	314	30	-300	-20	-3000	-3	-100	-100	-100	•09
105	314	30	-300	-20	-3000	-3	100	100	-150	•09
105	314	40	-300	-40	BELOW	-3	150	-100	-100	•72
105	314	40	-300	-40	BELOW	-3	200	-100	-100	•17
105	314	40	-300	-40	BELOW	3	150	-100 -100	-100 -100	•04 •04
105	314	40	-300 -300	-40 -40	-6000 -6000	-6 -3	200 150	-100	-100	.03
105 105	314 314	40 40	-300 300	-40	BELOW	-3	150	-100	-100	.09
105	314	40	300	-40	-6000	-3	150	-100	-100	.09
110	314	30	-300	-20	-3000	-3	-100	-100	-100	•05
110	314	40	-300	-60	BELOW	-3	150	-100	-100	•05
110	314	40	-300	-60	BELOW	-3	200	-100	-100	•09
110	314	40	-300	-40	BELOW	-3	150	-100	-100	•59
110	314	40	-300	-40	BELOW	-3	150 200	100 -100	-100 -100	.09 .38
110	314	40	-300 -300	-40 -40	BELOW -6000	-3 -3	150	-100	-100	.78
110 110	314 314	40	-300	-40	-6000	-3	200	-100	-100	17
115	314	40	-300	-40	BELOW	-3	150	-100	-100	.17
115	314	40	-300	-40	BELOW	-3	200	-100	-100	.60
115	314	40	-300	-40	-6000	-6	200	-100	-100	•04
115	314	40	-300	-40	-6000	-3	150	-100	-100	•09
115	314	40	-300	~40	-6000	-3	200	-100	-100	•12
LEFT	TUR	N •	DESCENT	Γ,	60	00 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
40	314	20	-600	-40	-3000	-6	-100	-100	100	•09
40	314	20	-600	-40	-3000	-6	-100	-100	150	•03
40	314	20	-600	-40	-3000	3	-100	100	-100	•09
60	314	20	-600	-40	-3000	-3	-100	-100	-100	•09
60	314	30	-600	-40	-3000	-3	-100	-100	-100	•09
60	314	30	-600	-40	-3000	3	-100	-100	-100	•04

TABLE LXXVI -Continued

}										
LEFT	TUR	N •	DESCEN	Τ•	60	00 LB	(CONT I	NUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
60	314	30	-600	-40	-3000	3	-100	100	-100	•04
70	314	30	-600 -600	-40	-3000	-3 -3	-100 -100	-100 100	-100 -100	•09
75 80	314 314	30 20	-600	-40 -20	-3000 -3000	-3	-250	-100	-100	• 09 • 36
80	325	20	-600	-20	-3000	-3	-250	-100	-100	.58
]	34,								•	- 10
LEFT	TUR	N•	DESCENT	۲,	70	00 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	20	-600	-40	-6000	-3	-100	-100	-100	.09
40	314	10	-600	-40	-6000	-3	-100	-100	100	•09
40	314	20	-600	-40	-6000	-3	-100	-100	-100	.17
75	314	20	-600	-20	0	-3	-250	-100	-100	•24
75	325	20	-300	-20	0	-3	-250	-100	-100	•12
80	314	20	-600 -300	-20 -20	0	-3 -3	-25C -250	-100 -100	-100 -100	•49 •49
80 80	314 325	20 20	-600	-20	0	-3	-250	-100	-100	.12
80	325	20	-300	-20	Ö	-3	-250	-100	-100	.12
80	325	30	-300	-80	BELOW	-3	-100	-100	-100	.18
85	314	20	-300	-20	0	-3	-250	-100	-100	.12
85	325	30	-300	-80	BELOW	-3	-100	-100	-100	•31
90	325	30	-300	-80	BELOW	-3	-100	-100	-100	•22
95	325	30	-300	-80	BELOW	-3	-100	-100	-100	•39
100 100	314 314	30 30	-900 -900	-60 -60	-3000 -3000	-3 -3	-100 -100	-100 100	-150 -150	•17
100	314	30	-900	-60	-3000	~,	-100	100	-170	•0'
İ										
LEFT	TUR	Ν•	DESCENT	Τ,	80	00 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
60	314	20	-300	-60	BELOW	-3	-100	-100	-100	.12
٥٥	314	20	-300	-60	BELOW	-3	-100	-100	100	.07
60	314	30	-300	-60	BELOW	-3	100	-100	-100	•17
70	314	20	-300	-60	BELOW	-6	-100	-100	100	•09
70	314 325	30 20	-300 -900	-60 -60	BELOW -3000	-3 -3	-100 -100	-100 -100	-100 -100	.06
70 75	314	30	-300	-60	BELOW	-3	-100	-100	-100	.06
75	325	20	-900	-60	-3000	-3	-100	-100	-100	.04
80	314	25	-300	-60	BELOW	-6	-100	-100	100	.04
80	325	.0	-900	-60	-3000	-3	-100	-100	-100	•09
85	314	ì	-300	-60	BELOW	-6	-100	-100	100	•04
85	325	,	-900	-60	-3000	-3	-100	-100	-100	•09
85	325	20	-600 -300	-80 -60	-6000 BELOW	-3 -6	-100 -100	-100 -100	-100 150	•22
90 90	314 314	20 30	-300	-60	-6000	-3	-100	-100	-100	.03
90	314	30	-300	-40	-6000	-3	-100	-100	-100	.09
90	325	20	-900	-60	0	-3	-100	-100	-100	•30
90	325	30	-600	-80	-6000	-3	-100	-100	-100	•22
95	314	30	-300	-60	BELOW	-6	-100	-100	150	.04
95	314	30	-300	-60	BELOW	-3	-100	-100	-100	-17
95 95	314 325	30 20	-300 -900	-40 -60	-6000 -3000	-3 -3	-100 -100	-100 -100	-100 -100	•09 •05
95	325	30	-600	-80	-6000	-3	-100	-100	-100	.04
95	325	30	-600	-80	-6000	-3	100	-100	-100	.14
100	314	40	-300	-60	BELOW	-3	100	-100	-100	•09

TABLE LXXVI - Concluded

LEFT	TUP	N •	DESCENT	•	900	10 LB				
VEL	RPM	TORG	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
BLW	314	20	-300	0	-3000	-3	150	-100	-100	.17
BLW	314	30	-300	0	-3000	3	200	-100	-100	•09
BLW	314	30	-300	20	-3000	-3	150	-100	-100	.09
BLW	314	30	-300	20	-3000	3	150	-100	-100	•09
40	314	20	-300	0	-3000	-3	150	-100	-100	.14
60	314	20	-300	0	-3000	-3	100	-100	-100	.16
60	314	20	-300	Ō	-3000	-3	150	-100	-100	.43
60	314	30	-300	Ō	-3000	-3	150	-100	-100	.17
70	314	20	-300	0	-3000	-6	150	-100	-100	.09
70	314	20	-300	Ŏ	-3000	-3	150	-100	-100	.09
75	314	20	-600	ō	-3000	-3	150	-100	-100	.09
80	314	20	-600	ŏ	-3000	-3	100	-100	-100	.22
110	314	30	-1200	-40	-6000	-3	100	-100	-100	.17
110	314	30	-1200	-20	-3000	-3	100	-100	-100	.09
-			-600	-60	BELOW	-3	-100	-100	-100	.14
110	314	30			-6000		100	-100	-100	.16
115	314	30	-1200	-40		-3		_		
115	314	30	-1200	-20	-3000	-3	100	-100	-100	•09
115	314	30	-600	-60	BELOW	-3	-100	-100	-100	.26
120	314	30	-1200	-40	-6000	-3	100	-100	-100	.17

TABLE LXXVII. TIME FOR RIGHT TURN DISTRIBUTED IN RANGES OF TEN PARAMETERS BY MISSION SEGMENT AND GROSS WEIGHT

RIGH	T TU	RN•	HOVER	₹•	,	9000 LF	}			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	40	-300	-20	-6000	-3	100	-100	-100	.17
BLW	314	40	-300	-20	-6000	-3	150	-100	-100	.29
BLW	314	50	-300	-40	-6000	-9	200	-100	-100	.03
BLW	314	50	-300	-40	-6000	-3	100	-100	-100	.09
BLW	314	50	-300	-40	-6000	-3	200	-100	-100	.0
BLW	314	50	-300	-20	-6000	-3	150	-100	-100	.09
BLW	325	20	-300	0	-3000	-6	-100	-100	-100	.0
BLW	325	20	-300	0	-3000	-3	-100	-100	-100	. 21
BLW	325	20	-300	0	-3000	3	-100	-100	-100	.13
BLW	325	30	-300	0	-3000	-6	-100	-100	-100	.0
BLW	325	30	-300	0	-3000	-3	-100	-100	-100	. 2
BLW	325	30	-300	0	-3000	3	-100	-100	-100	• 1
BLW	325	30	-300	20	-3000	-3	-100	-100	-100	• 2
BLW	334	30	-300	-60	-6000	-3	-100	-100	-100	.0
BLW	334	30	-300	-60	-6000	-3	100	-100	-100	• 0
BLW	334	40	-300	-60	-6000	-6	-100	-100	-100	•0
BLW	334	40	-300	-60	-6000	-3	-100	-100	-100	• 0 !
RIGHT	r tur	₹N•	ASCEN	Τ•	6	000 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIM
BLW	314	40	300	-60	-6000	-3	100	-100	-100	• 09
BLW	314	40	300	-60	-6000	3	-100	-100	-100	.20

TABLE LXXVII - Continued

RIGH	TU	RN.	ASCEN	T •	7	000 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
BLW	314	40	600	-40	-3000	-3	-100	-100	-100	.09
40	314	20	300	-20	0	-3	100	-100	-100	• 09
40	314	30	300	-20	0	-3	-100	-100	-100	•09
40	314	40	600	-40	-3000	-3	-100	-100	-100	•09
٠٥	314	40	600	-40	-3000	3	-100	-100	-100	.04
60	314	20	300	-20	0	-6	100	-100	-100	• 09
60	314	40	600	-40	-3000	3	-100	-100	-100	•04
60	325	10	-300	-20	0	-3	-100	100	-100	• 09
60	325	20	-300	-20	0	-3	-100	100	-100	•52
70	314	20	300	-20	-3000	-6	100	-100	-100	• 04
70	314	40	600	-40	-3000	3	-100	-100	-100	•04
70	325	20	-300	-20	0	-3	-100	100	-100	•09
75	314	20	-300	-20	0	-3	-100	100	-100	.14
75	314	20	-300	-20	0	-3	-100	150	-100	•05
75	314	30	-300	-60	-6000	-3	-100	-100	-100	•70
75	314	30	-300	-20	0	-3	-100	100	-100	•09
75	314	30	300	-20	-3000	-6	100	-100	-100	•04
75	314	40	600	-40	-3000	3	-100	-100	-100	•04
75	325	20	-300	-20	-3000	-3	100	100	-100	•05
75	325	30	-300	-20	0	-3	-100	100	-100	•17
80	314	20	-300	0	-3000	-3	-100	100	-100	•09
80	314	30	-300	-60	-6000	-3	-100	-100	-100	•05
80	314	30	-300	-20	-3000	3	100	-100	-100	•04
80	314	30	-300	-20	0	-3	-100	100	-100	•09
80	314	30	300	-20	-3000	-6	-100	-100	-100	•04
80	314	40	600	-40	-3000	-3	-100	-100	-100	•04
80	325	20	-300	-20	-3000	-3	-100	100	-100	•26
80	325	30	-300	-20	0	-3	-100	100	-100	•09
85	314	20	-300	-20	-3000	-6	100	-100	-100	•04
85	314	20	-300	-20	-3000	-3	-100	-100	-100	•09
85	314	20	-300	-20	-3000	-3	100	-100	-100	•09
85	314	30	-300	-20	-3000	3	100	-100	-100	•04
85	314	30	300 600	-20 -40	-3000	-6 -3	-100 -100	-100 -100	-100 -100	•04
85	314	40		-20	-3000	-3 -3		100	-100	.09
85	325	30	-300	-20	-3000 -3000	-3 -6	100 100	-100	-100	.04
90	314	20	-300 -300	-20	-3000	-6 -3	100	100	-100	.09
90	314	20		-20		-6	-100	-100	-100	.04
90	314	30	300 600	-40	-3000 -3000	-0 -3	-100	-100	-100	.02
90	314	40		-20	-3000	-3	-100	-100	-100	.09
95	314	30 30	-300 -300	-20	-3000	-3	100	-100	-100	.07
95 95	314	30	300	-20	-3000	-6	100	100	-100	.04
	314	30	-300	-20	-3000	-3	-100	100	-100	.09
100	314 314	30	300	-20	-3000	-3	-100	-100	-100	.09
100 105		30	300	-20	-3000	-3	100	-100	-100	.09
110	314 314	30	300	-20	-3000	-3	100	100	-100	.09
110	214	30	300	-20	-3000	- 3	100	100	-100	•07

TABLE LXXVII - Continued

	, ,	10.4	ASCENT	_	ឧក	ino Lis				
	ना ग					-				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
40	325	40	600	-60	-6000	-3	-100	-100	-150	• 09
40	325	40	600	-60	-6000	-3	-100	-100	-100	•27
40	325	40	900	-80	-6000	-6 -3	-100	-100	-100	•07 •09
60	314	30	300 300	-40 20	-6000 0	-3 -3	-100 -100	-100 -100	-100 -100	.14
60	325 325	20 20	300	20	0	-3	100	-100	-100	.18
60	325	30	-300	-80	-6000	-3	-100	-100	-100	.14
60	325	30	-300	-80	-6000	-3	-100	100	-100	.18
60	325	40	-300	-80	-6000	3	-100	-100	-100	.04
60	325	40	900	-80	-6000	-3	-100	-100	-100	.09
70	314	30	300	-40	-6000	-3	-100	-100	-100	.04
70	325	20	300	20	0	-3	-100	-100	-100	.07
70	325	40	-300	-80	-6000	3	-100	-100	-100	.04
70	325	40	900	-80	-6000	-6	-100	-100	-100	.04
75	314	30	300	-40	-6000	-3	-100	-100	-100	.17
75	314	30	600	-40	-6000	-3	-100	-100	-100	•09
75	325	20	300	20	0	-3	100	-100	-100	•07
75	325	40	-300	-80	-6000	-3	-100	-100	-100	•09
75	325	40	300	-80	-6000	-3	-100	-100	-150	•09
75	325	40	900	-80	-6000	-6	-100	-100	-100	•04
80	314	30	-300	-40	-6000	-3	-100	-100	-100	•09
80	314	30	300	-40	-6000	-3	-100	-100	-100 -100	•13 •09
80	314	30	600	-40	-6000	-3 -3	-100	-100	-100	.09
80 80	314 325	40 20	600 300	-40 20	0003-	-3	-100 100	-100 -100	-100	.07
80	325	40	-300	-80	BELOW	-3	-100	-100	-100	.04
80	325	40	-300	-80	-6000	-3	-100	-100	-150	.09
80	325	40	300	-80	-6000	-3	-100	-100	-150	•09
80	325	40	300	-80	-6000	-3	-100	-100	-100	.18
80	325	40	300	-80	-6000	3	-100	-100	-100	•02
80	325	40	900	-80	-6000	-6	-100	-100	-100	.04
85	314	30	300	-40	-6000	-3	-100	-100	-100	.17
85	314	40	-300	-40	-6000	-3	-100	-100	-100	•04
85	314	40	300	-60	-3000	-3	-100	100	-100	•09
85	325	20	300	20	0	-3	100	-100	-100	•03
85	325	40	-300	-80	BELOW	-3	100	-100	-100	.18
85	325	40	300	-80	-6000	-3	-100	-100	-150	•09
85	325	40	300	-80	-6000	-3	-100	-100	-100	-14
85	325	40	300	-80	-6000	-3	100	-100	-100	-18
90	314	40	-300	-40	-6000	-3	-100	-100	-100	•04
90	314	40	300	-60	-3000	-3	-100	100	-100 -100	•38 •03
90 90	325	20	300 300	20 20	0	-3 -3	-100 100	-100 -100	-100	.07
90	325 325	20 30	-300	-80	-6000	-3	-100	-100	-100	•52
90	325	40	-300	-80	BELOW	-3	100	-100	-100	.18
90	325	40	300	-80	-6000	-3	-100	-100	-100	.09
90	325	40	300	-80	-6000	-3	100	-100	-100	.05
90	325	40	900	-80	-6000	-6	-100	-100	-100	.04
90	325	40	900	-80	-6000	-3	100	-100	-100	.04
95	314	40	-300	-80	-6000	-3	100	-100	-100	.18
95	314	40	-300	-40	-6000	-3	-100	-100	-100	•16
95	314	40	300	-60	-3000	-3	-100	100	-100	•09
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TABLE LXXVII - Continued

	_				<u>.</u>					
RIGH	IT TL	JRN•	ASCEN	Τ•		9000 LE	3			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
40	314	30	300	-20	-3000	-3 -3	150 150	-100 -100	-100 -100	•17 •17
60 60	314 314	30 30	300 300	-20 20	-3000 -3000	-3	150	-100	-100	.17
60	325	20	300	Ď	-3000	-3	-100	-100	-100	.17
60	325	20	300	Ō	-3000	-3	100	-100	-100	.07
60	325	30	300	0	-3000	-3	100	-100	-100	.08
60	325	40	600	-40	-6000	-3	150	-100	-100	•13
70 70	314 314	30 30	300 300	-20 0	-3000 -3000	-3 -3	150 150	-100 -100	-100 -100	.08 .09
70	314	30	300	20	-3000	-3	150	-100	-100	.17
70	314	30	300	20	0	-3	150	-100	-100	•09
70	325	20	300	0	-3000	-3	100	-100	-100	.08
70	325	40	600	-40	-6000	-3	150	-100	-100	.08
75	314	30	-300	0	-3000 -3000	-3 -3	-100 100	100 100	-100 -100	•09 •09
75 75	314 314	30 30	-300 300	0	-3000	-3	-100	100	-100	.07
75	314	30	300	ŏ	-3000	-3	100	100	-100	.09
75	314	30	300	0	-3000	-3	150	-100	-100	.05
75	314	30	300	20	0	-3	100	-100	-100	•09
75	314	30	300	20	0	-3	100	100	-100	•07 •09
75 75	314 325	30 40	300 600	20 -40	0 -6000	-3 -3	150 100	-100 -100	-100 -100	•09
75	325	40	600	-40	-6000	-3	150	-100	-100	.17
80	314	30	-300	Ö	-3000	-3	100	100	-100	•07
80	314	30	300	0	-3000	-3	100	100	-100	•09
80	314	30	300	20	0	-3	150	100	-100	•26
			. = = .	5						
RIGH		IRN •	LFVFL			6000 LE				
VEL BLW	RPM 314	TORQ 20	R/C -300	OAT	ALT -3000	A/S ACC	CY-LNG -100	CY-LAT -100	COLL -100	TIME
40	314	10	-300	0	-3000	-6	-100	-100	-100	•09
40	314	20	-300	ŏ	-3000	-3	-100	-100	-100	.17
40	314	20	-300	Ō	-3000	-3	100	-100	-100	.28
40	314	20	-300	0	-3000	3	100	-100	-100	•09
60	314	20	-300	0	-3000	-6	-100	-100	-100	•09
60 60	314 314	20 30	-300 -300	0	-3000 -3000	-3 -3	-100 100	-100 -100	-100 -100	.09
70	314	20	-300	ŏ	-3000	-6	-100	-100	-100	.04
70	314	20	-300	ŏ	-3000	-3	-100	-100	-100	.09
75	314	20	-300	-20	-3000	-3	-200	-100	-100	.61
75	314	20	-300	0	-3000	-6	100	-100	-100	•04
75 75	314 314	20 20	-300 -300	0	-3000 -3000	-3 -3	-100 100	-100 -100	-100 -100	•09 •21
75	314	20	-300	Ö	-3000	3	100	-100	-100	.04
75	325	20	-300	-20	-3000	-3	-200	-100	-100	•32
80	314	20	-300	-20	-3000	-3	-250	-100	-100	. 36
80	314	20	-300	-20	-3000	-3	-200	-100	-100	•61
80 80	314 314	20	-300 -300	0	-3000	-6	100	-100	-100	• 04
80	314	20 20	-300 -300	0	-3000 -3000	-3 -3	-100 100	-100 -100	-100 -100	•09 •07
80	314	20	-300	ŏ	-3000	3	100	-100	-100	.04
80	325	20	-300	-20	-3000	-3	-250	-100	-100	•24
80	325	20	-300	-20	-3000	-3	-200	-100	-100	•24

TABLE LXXVII - Continued

VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
85	314	20	-300	0	-3000	-6	100	-100	-100	•04
85	314	20	-300	ŏ	-3000	-3	100	-100	-100	.21
85	325	20	-300	-20	-3000	-3	-250	-100	-100	.12
85	325	20	-300	-20	-3000	-3	-200	-100	-100	.12
90	314	20	-300	0	-3000	-3	-100	-100	-100	.03
90	314	20	-300	0	-3000	-3	100	-100	-100	.07
95	314	20	-300	0	-3000	-3	100	-100	-100	•24 •04
100	314 314	20 30	-300 -300	0	-3000 -3000	-3 -3	100 100	-100 -100	-100 -100	.09
105	314	20	-300	ŏ	-3000	-3	100	-100	-100	.04
RIGH	it tu	RN•	LFVFI	FLIC	GHT•	7000 LI	3			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CV-LAT	COLL	TIME
BLW	314	20	-300	0	3000	-3	-100	-100	-100	•09
40	314	20	-300	-60	-6000	-3	-100	-100	-100	.77
40	314	20	-300	0	3000	-3	-100	-100	-100	.18
40	314	20	300	0	3000	-3	-100	-100	-100	.37
40	314	30	-300	-60	-6000	-3	-100	-100	-100	•09
40	314	30	-300	-60	-6000	3	-100	-100	-100	•09
40 40	314 314	30 30	-300	0	3000	-3	-100	-100 -100	-100	•09
40	314	30	-300 300	-60	3000 -6000	3 -3	-100 -100	-100	-100 -100	•09 •18
40	314	30	300	-60	-6000	3	-100	-100	-100	.09
60	314	20	-300	-60	-6000	-6	-100	-100	-100	.09
60	314	20	-300	-60	-6000	-3	-100	-100	-100	.26
60	314	20	-300	-20	0	-3	-150	-100	-100	.46
60	314	20	300	0	3000	-3	-100	-100	-100	.27
60	314	30	-300	-60	-6000	-3	-100	-100	-100	•09
60 60	314 314	30 30	-300 -300	-60 0	-6000	3	-100	-100	-100	•09
60	314	30	300	-60	3000 -6000	3 -3	-100 -100	-100 -100	-100 -100	•05 •45
60	325	20	300	20	0000	-3	100	-100	-100	.15
70	314	20	-300	-60	-6000	-3	-100	-100	-100	•09
70	314	20	-300	-20	0	-3	-150	-100	-100	.06
70	314	30	-300	-60	-6000	-3	-100	-100	-100	.23
70	325	10	-300	20	0	-3	-100	-100	150	.08
70	325	20	-300	20	0	-3	-100	-100	100	.46
70 76	325 325	20 20	+300 -300	20 20	0	-3 -3	-100	-100	150	.15
70	325	20	300	20	0	-3 -3	100 -100	-100 -100	100 -100	.08 .22
70	325	20	300	20	0	-3	100	-100	-100	.15
70	325	30	-300	-100	BELOW	-3	-100	-100	-100	.02
75	314	20	-300	-20	0	-3	-150	-100	-100	.06
75	314	20	-300	20	0	3	-100	-100	-100	.08
75	314	30	-300	-60	-6000	-3	-100	-100	-100	.10
75	314	30	-300	-60	-3000	-3	-100	100	-150	•05
75 75	325 325	10	-300	20 20	0	-3	-100	-100	100	.08
75	325	10 20	-300 -300	20	0	-3 -3	-100 -100	-100 -100	150 100	•23 •23
75	325	20	-300	20	0	-3	-100	-100	150	.08
75	325	20	-300	20	ŏ	-3	100	-100	150	•09
75	325	30	-300	-100	BELOW	-3	-100	-100	-100	.45

TABLE LXXVII - Continued

		R11•					e		45. .	
YEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
80	314	20	-300	-20	2000	-3 -3	-200	-100	-100	.12
80 80	314	20 20	-300 -300	0	-3000 -3000	-3	100 150	-100 -100	-100 -100	.04 .08
80	314	30	-300	-60	-3000	-3	-100	100	-150	.26
80	314	30	-300	-60	-3000	-3	-100	150	-200	.09
80	314	30	-300	-40	-3000	-3	-100	-100	-100	.09
80	314	30	-300	-20	-3000	3	100	-100	-100	.07
80	325	10	-300	20	0	-3	-100	-100	100	.08
80	325	20	-300	-20	-3000	3	-100	-100	-100	.04
80	325	20	-300	-20	-3000	3	100	-100	-100	.03
80	325	20	-300	20	0	-3	-100	-100	100	.08
80	325	30	-300	-100	BELOW	-3	-100	-100	-100	.20
80	325	30	-300	-80	BELOW	-3	-100	-100	-100	.45
80	325	30	-300	-60	-3000	-3	-100	100	-150	.07
85	314	20	-300	-20	-3000	-3 -3	100	-100	-100	-08
85	314 314	20 20	-300 -300	-20 -20	0	-3 -3	-200 -150	-100 -100	-100 -100	•12 •12
85			-300	-60	-3000	-3	-100	100	-200	.03
85 85	314 314	30 30	-300	-60	-3000	-3	-100	100	-150	.04
85	314	30	-300	-40	-3000	-3	-100	-100	-100	.13
85	314	30	-300	-40	-3000	-3	100	-100	-100	.04
85	325	20	-300	-20	-3000	-3	-100	-100	-100	.09
85	325	20	-300	-20	-3000	-3	-100	100	-100	.14
85	325	20	-300	-20	-3000	3	-100	-100	-100	.07
85	325	30	-300	-80	BELOW	-3	-100	-100	-100	.07
85	325	30	-300	-80	BELOW	-3	100	-100	-100	.09
85	325	30	-300	20	0	-3	-100	-100	-100	. 15
90	314	20	-300	-20	-3000	-3	-100	-100	-100	.17
90	314	20	-300	-20	-3000	-3	-100	100	-100	.05
90 90	314 314	20 20	-300 -300	-20 -20	-3000 -3000	-3 3	100	-100 -100	-100 -100	.06 .07
90	314	20	-300	-20	-3000	-3	-150	-100	-100	.24
90	314	20	-300	-20	-3000	-6	200	-100	-100	.04
90	314	20	-300	ŏ	-3000	-3	150	-100	-100	.08
90	314	30	-300	-60	-3000	-3	-100	100	-200	.34
90	314	30	-300	-60	-3000	-3	-100	100	-150	.04
90	314	30	-300	-60	-3000	-3	-100	150	-200	.09
90	314	30	-300	-60	0	-3	-100	100	-200	.14
90	314	30	-300	-40	-3000	-3	-100	-100	-100	•09
90	314	30	-300	23	0	-3	-100	-100	-100	•06
90	314	30	300	-60	-3000	-3	-100	100	-200	•09
90	314	30	300	-60 -30	-3000	-3 -3	-100	100 -100	-200 -100	.03 .28
90 90	325 325	20 20	-300 -300	-20 -20	-3000 -3000	-3 -3	-100 100	100	-100	• 28
90	325 325	30	-300	20	-3000	-3	-100	-100	-100	•15
90	325	30	-300	20	Ö	-3	100	-100	-100	.08
90	325	40	-300	-100	BELOW	-3	100	-100	-100	.11
95	314	20	-300	-20	-3000	-3	100	-100	-100	.22
95	314	20	-300	0	-3000	-6	200	-100	-100	.04
95	314	20	-300	0	-3000	-3	100	-100	-100	•17
95	314	30	-300	-80	-6000	-3	-100	-100	-100	.18
95	314	30	-300	-60	-3000	-3	-100	-100	-200	•22
95 95	314	30	-300	-60	-3000	-3	-100	-100	-100	•09
	314	30	-300	-60	-3000	-3	-100	100	-200	•52

TABLE LXXVII - Continued

PIG	HT TU	IRN.	LFVFL	FLIG	HT • 7	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
95	314	30	-300	-60	-3000	-3	-100	100	-150	.17
95	314	30	-300	-60	0	-3	-100	100	-200	.17
95	314	30	-300	-40	-3000	-3	-100	-100	-100	• 09
95	314	30	300	-60	-3000	-3	-100	100	-200	•17
95	314	40	-300	-60	-3000	-3	-100	-100	-150	•09
95	314	40	-300	-60	-3000	-3	-100	100	-200	.26
95	314	40	-300	-40	-3000	-3	-100	-100	-100	•04
95	325	20	-300	-20	-3000	-6	-100	-100	-100	•10
95	325	20	-300 -300	-20	-3000	-6 -3	100 100	-100 -100	-100 -100	•03 •12
95	325 325	30 30	-300 -300	-80 -80	-6000	-3 -3	-100	-100	-100	.27
95 100	314	30	-300	-80	BELOW	-3	100	-100	-100	.09
100	314	30	-300	-80	BELOW	-3	150	-100	-100	.09
100	314	30	-300	-80	-6000	-3	-100	-100	-100	.09
100	314	30	-300	-80	-6000	- 3	100	-100	-100	•04
100	314	30	-300	-60	-3000	-3	-100	-100	-200	.09
100	314	30	-300	-60	-3000	-3	-100	-100	-100	•21
100	3: ,	30	-300	-40	-3000	-3	-100	-100	-100	.18
100	314	30	-300	-20	-3000	-3	100	-100	-100	.13
100	314	30	-300	0	-3000	-3	100	-100	-100	•08
100	314	40	-300	-60	-3000	-3	-100	-100	-200	-14
100	314	40	-300	-60	-3000	-3	-100	-100	-150	• 46
100	314	40	-300	-60	-3000	-3	-100	100	-200	•09
100	314	40	-300	-40	-3000	-3	-100	-100	-100	•09
100	325	30	-300	-80	BELOW	-3	100	-100	-150	•09
100	325	30	-300	-80	BELOW	-3	150	-100	-100	•09
100	325	30	-300	-80	-6000	-3	-100	-100	-100	•09
105	314	30	-300	-20	-3000	-3	100	-100	-100	•23 •10
105	325	30	-300 -300	-20	-3000	-6 -3	-100 100	-100 -100	-100 -100	.13
105	325	30 30	-300 -300	-20 -20	-3000 -3000	-3 -3	100	-100	-150	•15
110 110	314 314	30	-300	-20	-3000	-3	100	-100	-100	.23
110	325	30	-300	-20	-3000	-3	100	-100	-100	.07
	363	50	200		,,,,,	•				J J .
RIGH	HT TU	RN.	LFVEL	FLI	GHT•	8000 LF	3			
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-ING	CY-LAT	COLL	TIME
40	314	20	-600	-40	-6000	A/3 ACC	-100	-100	-100	.03
40	314	20	-300	-60	BELOW	-3	-100	-100	-100	.09
40	314	20	-300	20	0	-3	100	-100	-100	.59
40	314	20	-300	20	Ŏ	-3	150	-100	-100	.08
40	314	30	-300	-6C	BELOW	-3	-100	-100	-100	.34
40	314	30	-300	-60	BELOW	-3	100	-100	-100	•07
40	314	30	-300	-40	-2000	-3	-100	-100	-100	-17
40	325	20	-600	-80	-600¢	-3	-100	-100	-100	.18
40	325	30	-600	-80	-6000	-3	-100	-100	-100	•52
40	325	30	300	-80	BELOW	-6	-100	-100	-100	•02
40	325	30	300	-80	BELOW	-3	-100	-100	-100	•09
60	314	20	-300	-60	BELOW	-6	-100	-100	-100	•09
60	314	20	-300	-40	-6000	-3	100	-100	-100	•09
60	314	20	-300	0	0	-3	100	-100	-100	•46
60	314	30	-600	-40	BELOW	-3	100	-100	-100	•09
60	314	30	-600	-40	-6000	6	-100	-100	-100	•03
60	314	30	-300	-60	BELOW	-3	100	-100	-100	•05

TABLE LXXVII - Continued

RIG	HT TI	JPN•	L.c VFL	FLIGH	T. 80	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
60	314	30	-300	-40	-6000	-3	100	-100	-100	• 10
60	314	30	-300	-40	-6000	-3	150	-100	-100	.50
60	314	30	-300	-40	-3000	-3	-100	-100	-100	.09
60	314	30	-300	-40	-3000	3	-100	-100	-100	.04
60	314	40	-300	-60	BELOW	-3	100	-100	-100	.09
60	325	10	-600	-40	-6000	-6	-100	-100	200	.05
60	325	20	-600	-80	-3000	-3	-100	-100	-100	.18
60	325	20	-300	20	0	-3	100	-100	-100	.06
60	325	20	-300	40	0	-3	100	-100	-100	• 30
60	325	30	-600	-80	-6000 -3000	-6	-100	-100	-100	•09
60	325 325	30	-600 300	-80 -80		-3 -3	-100 -100	-100	-100 -100	.14
60 70	314	30 20	-300	-60	BELOW	- 6	-100	-100 -100	-100	•23 •04
70	314	20	-300	-40	-6000	-3	100	-100	-100	.09
70	314	20	-300	0	-3000	-3	-100	-100	-100	.08
70	314	20	-300	ŏ	-3000	-3	100	-100	-100	•03
70	314	20	~300	ŏ	0	-3	100	-100	-100	.03
70	314	30	-600	-40	BELOW	-3	100	-100	-100	.26
70	314	30	-600	-40	-6000	3	-100	-100	-100	•04
70	314	30	-30C	-60	-3000	-3	-100	-100	-100	• 09
70	314	30	-300	-40	BELOW	-3	100	-100	-100	•38
70	314	30	-300	-40	-6000	-3	100	-100	-100	•09
70	314	30	-300	-40	-6000	-3	150	-100	-100	•09
70	325	20	-600	-80	-3000	-3	-100	100	-100	.18
70	325	20	-300	20	0	-3	-100	-100	-100	•07
70	325	20	-300 -300	20 40	0	-3 -3	100 100	-100 -100	-100 -100	•50 •14
70 75	325 314	20 20	-300	-40	-6000	-3	100	-100	-100	.09
75	314	20	-300	0	-3000	-3	-100	-100	-100	.76
75	314	20	-300	ŏ	-3000	-3	100	-100	-100	.08
75	314	20	-300	ŏ	0	-3	-100	-100	-100	.42
75	314	20	-300	Ö	Ö	-3	100	-100	-100	.41
75	314	20	-300	0	0	-3	150	-100	-100	.08
75	314	30	-600	-40	-6000	3	-100	-100	-100	•04
75	314	30	-300	-60	BELOW	-3	100	100	-100	•03
75	314	30	-300	-40	-6000	-3	150	-100	-160	•17
75	314	30	-300	-40	-3000	3	-100	-100	-100	•04
75	314	40	-300	-40	BELOW	-3	100	-100	-100	•09
75	325	20	-600	-40	-6000	-9	-100	-100	100	•04
75	325	20	-300 -300	20	0	-3 -3	-100	-100	-100	•07
75 75	325 325	20 20	-300 -300	20 20	0	-3	100 100	-100 -100	-100 100	•35 •07
75	325	20	-300	40	0	-3	100	-100	-100	.07
75	325	30	-300	-80	-3000	-3	-100	-100	-100	.04
75	325	30	-300	-60	-3000	3	-100	-100	-100	.04
75	325	30	300	-80	-6000	-3	-100	-100	-100	.27
80	314	20	-300	-60	BELOW	-3	-100	-100	-100	.09
80	314	20	-300	0	-3000	-3	-100	-100	-100	.08
80	314	20	-300	0	-3000	-3	150	-100	-100	.17
80	314	20	-300	0	0	-3	-100	-100	-100	.08
80	314	20	-300	0	0	-3	100	-100	-100	•42
80	314	30	-300	-60	BELOW	-6	-100	-100	-100	.04
80	314	30	-300	-40	-6000	-3	100	-100	-100	•33
80	314	30	-300	-40	-6000	-3	150	-100	-100	•22
										1

TABLE LXXVII - Continued

2.6								WIED:		
RIGH	IT TU	IKN •	LFVFL	FLIGHT	• 80			MOFD)		
VEL	RPM	TORQ	R/C	OAT	ALT		CY-LNG	CY-LAT	COLL	TIME
80	314	30	-300	-40	-3000	-3	-100	-100	-100	• 05
80 80	314 314	30 40	-300 -300	-60	-3000 BELOW	-3 -3	150 -100	-100 100	-100 -100	•09 •09
80	314	40	-300	-40	BELOW	-3	100	100	-100	•09
80	325	20	-300	-20	0	-3	-100	100	-100	.09
80	325	30	-300	-80	-6000	-3	-100	-100	-100	.31
80	325	30	-300	-80	-3000	-6	-100	-100	-100	.03
80	325	30	-300	-60	-3000	3	-100	-100	-100	•04
80	325	30	300	-80	-6000	-3	-100	-100	-100	.07
80 85	325 314	40 20	300 -600	-80 -40	-6000 -6000	-3 -9	-100 -100	-100 -100	-100 -100	.02 .04
85	314	20	-300	-60	-6000	-3	-100	-100	-100	.09
85	314	20	-300	-20	0	-3	-100	100	-100	.09
85	314	20	-300	0	-3000	-3	150	-100	-100	.14
85	314	20	-300	0	0	-3	100	-100	-100	.17
85	314	30	-300	-60	BELOW	-3	-100	-100	-100	•09
85	314	30	-300	-60	BELOW	-3	-100	100	-100	•09
85	314	30	-300	~60 ~40	BELOW	-3 -3	100 -100	100 -100	-100	•09 •09
85 85	314 314	30 30	-300 -300	-40 -40	-6000 -6000	-3	150	-100	-100 -100	•04
85	314	30	-300	-40	-3000	-3	150	-100	-100	.38
85	314	40	-300	-60	BELOW	-3	-100	100	-100	.26
85	314	40	-300	-60	BELOW	-3	100	100	-100	.17
85	314	40	-300	-40	BELOW	-3	-100	100	-100	•09
85	314	40	-300	-40	BELOW	-3	100	100	-100	•09
85	325	20	-300	-20	0	-3	-100	100	-100	•31
85	325	30	-300 -300	-80 -80	-6000 -6000	-3 -3	-100 100	-100 -100	-100 -100	•57 •09
85 85	325 325	30 30	-300	-80	-3000	- 6	-100	-100	-100	•03
85	325	30	-300	-80	-3000	-3	-100	-100	-100	•11
85	325	30	-300	-60	-3000	-3	-100	150	-150	•02
90	314	30	-300	-60	BELOW	-3	-100	100	-100	•09
90	314	30	-300	-60	BELOW	-3	100	100	-100	•09
90	314	30	-300	-40	-6000	-3	-100	-100	-100	•99
90	314	40	-300	-80	-6000 BELOW	-3 -3	-100 -100	-100 100	-100 -100	•02 •17
90 90	314 314	40 40	-300 -300	-60 -60	BELOW	-3	100	100	-100	.12
90	314	40	-300	-40	BELOW	-3	100	100	-100	.14
90	325	30	-300	-80	-6000	-3	-100	-100	-100	•09
90	325	30	-300	-80	-6000	-3	100	-100	-100	.18
90	325	30	-300	-80	-3000	-6	-100	-100	-100	•04
90	325	30	-300	-80	-3000	•3 -3	-100	-100	-150	•09
90	325 325	30 30	-300 -300	-80 -60	-3000 -3000	-3 -3	-100 -100	-100 -100	-100 -100	•36 •09
90 90	325	30	-300	-60	-3000	-3	-100	150	-150	.09
90	325	40	-300	-80	-6000	-3	-100	-100	-100	.14
95	314	30	-300	-60	BELOW	-3	-100	100	-100	.09
95	314	30	-300	-40	-6000	-3	-100	-100	-100	1.21
95	314	30	-300	-40	-6000	-3	-100	-100	100	•09
95	314	40	-300	-60	BELOW	-3	100	100	-100	•09
95	314	40	-300	-60	-3000	-3 -3	-100	-100	-100	•15
95 95	314 314	40 40	-300 -300	-40 -40	-6000 -6000	-3 3	-100 -100	-100 -100	-100 -100	•09 •02
95	325	30	-300	-80	-3000	-6	-100	-100	-100	.04
95	325	30	-300	-60	-3000	-3	-100	100	-150	.09
	-			-			-			

LEVEL FLIGHT. 8000 LB (CONTINUED) RIGHT TURN . OAT ALT A/S ACC CY-LNG RPM TORQ R/C CY-LAT COLL TIME VEL 95 325 30 -300 -60 -3000 -3 -100 150 -150 .17 100 314 30 -900 -40 -6000 -3 -100 -100 -100 .04 -100 -300 -40 -6000 -100 -100 .09 314 -3 100 30 100 314 40 -300 -60 -3000 -3 -100 -100 -100 .46 100 325 30 -300 20 0 -3 -100 -100 -100 .14 -900 -40 -6000 -100 100 .04 105 314 30 -3 -100 .09 314 -900 -40 -6000 -3 -100 -100 -100 105 40 .07 -100 20 -100 0 -3 -100 105 325 30 -300 105 325 30 -300 20 0 -3 100 -100 -100 .51 -3000 -3 .17 95 30 -600 -20 314 .09 100 314 30 -600 -20 -3000 -3 .09 105 30 -600 -20 -3000 RIGHT TURN, LEVEL FLIGHT. 9000 LB RPM VEL TORQ R/C OAT ALT A/S ACC CY-LNG CY-LAT COLL TIME -300 -3000 -100 40 314 20 0 -3 -100 -100 .09 -300 -3000 -100 .26 314 n -3 100 -100 40 23 40 314 30 -300 0 -3000 -3 100 -100 -100 .03 40 325 20 -300 0 -3000 -9 -100 -100 100 .03 -3 40 -300 0 -3000 -100 -100 -100 325 20 .26 -3000 -100 40 325 20 -300 0 -3 100 -100 .26 60 314 20 -300 0 -3000 -3 -100 -100 -100 .25 -300 -3000 -100 -100 60 314 20 0 -3 100 .14 60 314 20 -300 0 -3000 -3 150 -100 -100 .26 60 314 30 -300 0 -3000 -3 100 -100 -100 .09 60 314 30 -300 0 -3000 -3 150 -1,00 -100 .17 70 -300 0 -3000 150 -100 -100 .05 314 20 -6 70 314 20 -300 0 -3000 -3 -100 -100 -100 .42 -3 -100 70 314 20 -300 0 -3000 100 -100 .03 70 314 20 -300 0 -3000 -3 150 -100 -100 .22 70 314 30 -300 -3000 -3 150 -100 -100 .17 70 314 30 -300 0 -3000 -3 200 -100 -100 .09 75 -300 0 -3000 -3 -100 -100 .25 20 -100 314 -300 -3000 -100 -100 75 314 20 0 -3 100 .17 75 314 20 -300 0 -3000 -3 100 100 -100 .09 -100 75 20 -300 0 -3000 -3 150 -100 .43 314 -3000 -3 200 -100 -100 .07 75 314 20 -300 0 75 -300 0 -3000 -3 150 -100 -100 .85 314 30 -100 -100 75 -300 -80 BELOW -3 -100 .18 325 30 -3000 -100 -100 .17 0 -3 -100 -300 80 314 20 .05 -3 -100 80 314 20 -300 0 -3000 -100 100 -300 0 -3000 -3 100 100 -100 .09 80 314 20 -3000 -3 -100 -100 .17 -300 0 150 20 80 314 -3 150 -100 -100 .35 -300 n -3000 80 314 30 -100 -80 -100 80 325 30 -300 BELOW +3 100 .18 -300 C -3000 -3 150 -100 -100 .09 85 314 30 -300 -40 -6000 -3 100 -100 -100 .09 95 30 314 -40 -3000 -3 100 -100 .09 -100 -300 95 314 30 -100 .22 100 314 30 -300 -40 -6000 -3 100 -100 -100 -300 -40 -3000 -3 -100 -100 .09 100 314 30 -40 -3000 -3 -100 100 -100 .28 -300 100 30 314 -40 BELOW -3 150 -100 -100 .09 -300 100 314 40 -100 .14 -3 150 100 40 -300 -40 -6000 100 314 -150 105 314 -300 -40 -3000 -100 100 .09

TABLE LXXVII - Continued

TABLE LXXVII - Continued

RIGH	TTU	Bu•	LEVEL	FLIGHT	• 90	00 LB	CONTI	NUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
105	314	40	-300	-60	BELOW	-3	150	-100	-100	.09
105	314	40	-300	-60	BELOW	-3	200	-100	-100	.09
105	314	40	-300	-40	BELOW	-3	150	-100	-100	.43
105	314	40	-300	-40	BELOW	-3	150	100	-100	• 09
105	314	40	-300	-40	BELOW	-3	200	-100	-100	•13
110	314	40	-300	-40	BELOW	-3	150	-100	-100	. 34
110	314 314	40	-300 -300	-40 -40	BELOW BELOW	-3 -3	200 200	-100 -100	-100 -100	1.01 .22
115	314	40	-300	-40	-6000	-3	150	-100	-100	.09
115	314	40	-300	-40	-6000	-3	200	-100	-100	.14
120	314	40	-300	-40	-6000	-3	200	-100	-100	.17
1							_			
	IT TU			CENT.	T. 2	6000 L				
VEL	RPM	TORQ	R/C	OAT	TJA		CY-LNG	CY-LAT	COLL	TIME
40 60	314 314	20 20	-900 -900	-40 -80	-3000 -6000	-3 -3	-100 -100	100 -100	100 -100	•10 •09
60	314	20	-900	-40	-3000	-3	-100	100	-100	•09
60	314	20	-900	-40	-3000	3	-100	100	-100	.04
70	314	20	-900	-80	-6000	-3	-100	-100	-100	•09
75	314	20	-900	-80	-6000	-3	-100	-100	-100	•09
75	314	20	-900	-80	-6000	-3	-100	100	-100	•09
75	314	30	-900	-40	-3000	3	-100	100	-100	•04
80	314	20	-600	-20	-3000	-3	-250	-100	-100	•49
80	314	20	-600	-20	-3000	-3	-200	-100	-100	•12
80	314	30	-900	-80	-6000	-3	-100	100	-100	•09
80	314	30	-900	-40 -30	-3000 0	-3 -3	-100 -250	100 -100	-100 -100	•04 •12
80 80	325 325	10 20	-600 -600	-20 -20	-3000	-3	-250	-100	-100	.24
85	314	40	-900 -900	-40	-3000	-3	-100	100	-100	.04
90	314	40	-500	-40	-3000	-3	-100	100	-100	.05
0.0	.T T	ID N	055	CENT		7000 :	0			
	HT TU			CENT.		7000 L				
VEL	RPM	TORO	R/C	OAT	ALT		CY-LNG	CY-LAT	COLL	TIME
BLW	314	20	-300	-60	-6000	-9	-100	-100	-100	•02
BLW	314 314	20 30	-300 -300	-60	-6000	-6	-100	-100	-100	•09
BLW 40	314	10	-600	-60 -80	-6000 -6000	· 3	-100 -100	-100 -100	-100 100	•04 •18
40	314	20	-600	-80	-6000	-3	~100	-100	-100	.33
40	314	20	-300	-60	-6000	-6	-100	-100	-100	.07
60	314	10	-600	-20	-3000	-3	-100	-100	150	.05
60	314	20	-600		-6000	-3	-100	-100	-100	.09
70	314	10	-600	-20	-3000	-6	100	-100	150	•04
70	314	20	-600	-80	-6000	-3	-100	-100	-100	•09
75	314	10	-600	-20	-3000	-6	100	-100	150	•04
80	314	10	-1500	-20	0	-3	-100	-100	100	•09
80	314	10	-1200	0	3000	-3	-100	-100	-100	.27
80 80	314 314	10 20	-600 -1500	-20 0	-3000 0	-6 -3	100 -100	-100 -100	100 -100	.04
80	314	20	-600	-20	-3000	-3 -3	100	-100	100	•12
80	314	30	-300	-40	-3000	-3	-100	-100	-100	.09
80	314	30	-300	-40	-3000	-3	-100	100	-100	.04
						_				
L										

TABLE LXXVII - Continued

RIG	нт ть	IRN,	DESCEN	т,	70	00 LB	(CONTI	NUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
85	314	10	-1500	-20	-3000	-3	-100	-100	100	.09
85	314	10	-1500	-20	-30CJ	-3	100	-100	150	.09
85	314	10	-1200	0	3000	-3	-100	-100	-100	.2r
85	314	10	-600	-20	-3000	-6	-100	-100	100	• 04
85	314	20	-1500	-20	-3000	-3	100	-100	-100	•09
85	314	20	-1500	-20	-3000	12	100	-100	100	•02
85 85	314 314	20 20	-1500 -600	0 -20	0 -3000	-3 -3	-100 100	-100 -100	-100 -100	•09 •04
85	314	30	-300	-40	-3000	-3	-100	100	-100	.04
85	314	40	-300	-40	-3000	-3	-100	-100	-100	•04
90	314	10	-1500	-20	-3000	-3	-100	-100	100	.09
90	314	20	-1200	0	3000	-6	-100	-100	-100	.04
90	314	20	-600	-20	-3000	-3	100	-100	-100	.04
90	314	30	-300	-40	-3000	-3	-100	100	-100	•13
90	314	40	-300	-40	-3000	-3	-100	-100	-100	• 09
90	325	10	-1800	0	3000	-3	-100	-100	100	.18
95	314	10	-1800	0	3000	-3	-100	100	-100	•09
95	314	20	-1200	-40	3000	-6	-100	-100 -100	-100 -100	•04 •17
95 95	314 314	30 30	-300 -300	-40	-3000 -3000	-3 -3	-100 -100	100	-100	.09
95	314	40	-300	-40	-3000	-3	-100	-100	-100	.03
95	325	10	-1800	ő	3000	-3	-100	-100	-100	.09
95	325	10	-1800	Ŏ	3000	-3	-100	-100	100	•09
	IT TU			ENT.		8000 LB		64 LAT	6011	TIME
VEL BLW	RPM 314	TORQ 10	R/C -300	TAO	ALT -3000	A/S ACC -9	100	CY-LAT -100	COLL 150	TIME •02
4C	314	20	-300	0	-3000	-6	100	-100	100	.08
40	314	20	-300	ŏ	-3000	-3	100	-100	-100	.17
40	314	20	-300	ŏ	-3000	-3	100	-100	100	. 25
40	314	20	-300	0	-3000	-3	150	-100	100	.08
60	314	20	-300	-20	-3000	-3	100	-100	-100	.12
70	314	20	-300	-20	-3000	-3	100	-100	-100	.08
70	325	10	-900	C	0	-3	-100	-100	150	•08
- 75	314	10	-900	0	0	-3	-100	-100	-100	-15
75	314	20	-300 -300	-20	-3000 -3000	-3 -3	100 150	-100 -100	-100 -100	•17 •08
75 75	314 325	20 10	-900	-20 0	-3000	-3	-100	-100	150	.17
75	325	30	-600	-80	-6000	3	-100	-100	-100	.04
80	314	10	-900	ő	0	-3	-100	-100	-100	.25
80	314	30	-300	0	-3000	-3	150	-100	-100	.07
80	325	10	-1500	-80	-3000	-3	-100	-100	-100	•09
80	325	30	-600	-80	-6000	-3	-100	-100	-100	•05
80	325	30	-600	-80	-6000	3	-100	-100	-100	•04
85	125	20	-1500	-80	-6000	-3	-100	-100	-100	•09
85	325	20	-1500	-80	-3000	-3	-100	-100	-100	•09
85 85	325 325	30 30	-600 -600	-80 -80	-6000 -6000	-3 3	-100 -100	-100 -100	-100 -100	•15 •05
90	325	20	-1500	-80	-6000	-3	-100	-100	-100	-18
90	325	30	-1200	-80	-6000	-3	-100	-100	-100	.05
90	325	30	-600	-80	-6000	-3	-100	-100	-100	•13
90	325	40	-600	-80	-6000	-3	-100	-100	-100	.11
95	325	20	-1500	-80	-6000	-3	-100	-100	-100	-18
95	325	30	-1200	-80	-6000	-3	-100	-100	-100	•36
95	325	30	-600	-80	-6000	-3	-100	-100	-100	•09

TABLE LXXVII - Concluded

RIGH	IT TU	RN•	DESC	ENT.	11	9000 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
40	314	10	-600	20	-3000	-6	150	-100	150	.05
40	325	10	-600	20	0	-6	150	-100	150	• 09
40	325	20	-300	0	-3000	-3	-100	-100	-100	.41
40	325	20	-300	0	-3000	-3	100	-100	-100	.09
60	314	10	-600	20	0	-3	100	-100	150	.09
60	314	20	-300	0	-3000	-3	150	-100	-100	.09
60	325	10	-600	20	0	-3	150	-100	150	.09
70	314	10	-600	20	0	-3	150	-100	100	.17
70	314	20	-600	20	0	-3	150	-100	100	•09
73	314	20	-300	0	-3000	-3	150	-100	-100	.26
7.5	314	20	-600	0	-3000	-3	100	-100	-100	.17
15	314	20	-300	0	-3000	-3	150	-100	-100	• 09
60	314	20	-600	0	-3000	-3	150	-100	-100	.16
80	314	20	-300	9	-3000	-3	150	-100	-100	.43
80	314	30	-30.	0	-3000	-3	100	-100	-100	.09
85	314	20	-30C	0	-3000	-3	150	-100	-100	.09
85	314	30	-300	0	-3000	-3	150	-100	-100	.07
95	314	30	-600	-40	-6000	-3	100	-100	-100	•03
95	314	40	-300	-40	-6000	-3	150	-100	-100	•09
100	314	20	-900	-40	-6000	-3	-100	-100	-100	.17
100	314	20	-900	-40	-6000	-3	100	-100	-100	.67
100	314	30	-600	-40	-6000	-3	-100	-100	-100	.09
100	314	30	-600	-40	-6000	-3	100	-100	-100	.09
100	314	40	-300	-40	BELOW	-3	150	-100	-100	•09
100	314	40	-300	-40	BELOW	3	150	100	-100	•04
100	314	40	-300	-40	-6000	-3	150	100	-100	.09
105	314	20	-2100	-40	-6000	-3	100	-100	-100	.09
105	314	40	-300	-40	BELOW	3	150	-100	-100	.04
105	314	40	-300	-40	-6000	-3	150	100	-100	.17
110	314	20	-2100	-40	-6000	-3	100	-100	100	•09
110	314	20	-2100	-40	-6000	-3	150	-100	-100	.03
110	314	40	-300	-40	-6000	-3	150	-100	-100	. 26
110	314	40	-300	-40	-6000	-3	150	100	-100	.17

TABLE LXXVIII. TIME FOR COLLECTIVE PUSHOVER DISTRIBUTED IN RANGES OF TEN PARAMETERS BY MISSION SEGMENT AND GROSS WEIGHT

\models											
	כחוו	FCTI	VF PI	JSHOVER.		HOVER .		800	0 LB		
	COL		VL I	35 13 V 1 V					•		
ì	VEL	RPM	TORQ		DAT	ALT	A/S ACC	CY-LNG			
1	BLW	325	40	-300	-20	-6000	3	150	-100	-100	•09
ı											
									20 10		
	COL	LECT	I VE P	USHOVER •					OO LB		
1	VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
	40	314	40	-300	-40	-3000	3	-100	-100	-100	.05
1	60	314	40	-300	-40	-3000	3	-100	100	-100	.05
1	70	314	30	-300	-40	-3000	-3	-100	100	-100	.14
1	80	314	20	300	-20	-3000	-3	-100	-100	-100	.08
	80	314	40	-300	-80	-6000	-3	-100	100	-100	•20
	85	314	20	300	-20	-3000	-3	-100	-100	-100	.08
1	85	314	30	-300	-80	-6000	-3	-100	-100	-100	
1	85	314	30	300	-20	-3000	-3	-100	-100	-100	.14
	COL 1	ECTI	VE D	JSHOVER •		ACCENIT		700	0.10		
	CUL		Vr. PL	12U11164 +			•	700	O LA		
1	VEL	RPM	TORO	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
1	40	314	20	300	-20	0	-3	-100	-100	-100	.19
	40	314	20	300	-20	0	-3	100	-100	-100	.17
	60	314	20	-300	-80	-6000	-3	-100	-100	-100	•27
	60	314	30	-300	-60	-6000	-3	-100	-100	-100	•13
	70	314	20	-300	-20	0	3	-100	100	-100	•02
1	70	314	30		20	0	-3	100	-100	-100	•09
	75	314	30	-600	-60	-6000	-3	-100	-100	-100	-11
	75 75	314 314	30 30		20	0	-3	-100	-100	-100	•23
	75	325	20	600 -300	20 -20	0	-3 -3	100 -100	-100	-100	•02
1	75	325	30	600	20	0	-3	-100	100 -100	-100 -100	•12 •06
	75	325	30	900	20	0	-3	-100	-100	-100	.37
Ĭ	80	314	20	-600	-60	-6000	-3	-100	-100	-100	.09
	80	314	30	-300	-60	-6000	-3	-100	-100	-100	.09
	85	314	30	-300	-80	-6000	-3	-100	-100	-100	.18
1	85	314	30	-300	-20	0	-3	-150	-100	-100	.32
1	95	325	40	-300	-80	-6000	-3	-100	-100	-100	.09
	100	314	30	600	0	0	-3	150	-100		•12
	120	314	30	600	-80	-3000	-3				.03
	120	314	40	600	-80	-3000	- 3				.17
	125	314	30	600	-80	-3000	- 3				.03
1											
1.	-01	ECTI	VE D	CHOVED		ACCENT		000	0.10		
1	ULL	בכון.	VE PU	SHOVER •		ADCENT	•	800	ULB		
1	VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
1	40	304	40	900	20	-3000	3	100	-100	-100	.07
1	40	325	30	300	-60	o	-3	-100	-100	-150	.07
1	40	325	40	300	-60	0	-3	-100	-100	-150	.13
1	60	304	30	900	20	-3000	3	100	-100	-100	.07
1	60	325	30	300	-60	0	3	-100	-100	-150	.05
1	60	325	40	300	-60	-3000	3	-100	-100	-100	•05
	70	314	10	-300	0	0	-3	-100	-100	100	•08
	70	314	20	-300	0	0	-3	100	-100	-100	•17
	70	325	10	300	20	-3000	-6	100	-100	200	•06
	75	314	10	-300	0	0	-3	-100	-100	-100	•17
1											

TABLE LXXVIII - Continued

		. -								
ĊüFF	ECTI	VE PU	SHOVER.							D)
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
75	314	40	600	20	-3000	-3	100	-100	-100	.08
75	325	10	300	20	-3000	-3	100	-100	150	.07
80	314	40	1500	20	0	-3	100	-100	-100	•08
80 80	325 325	20	300 300	20 20	-3000 -3000	-3 -3	100 100	-100 -100	-100 150	•06 •07
80	325	20 30	600	20	-3000	-3	100	-100	-100	.08
80	325	30	1500	20	-3000	-3	-100	-100	-100	•06
85	314	40	300	-80	-6000	-3	100	-100	-100	.05
85	325	40	-300	-80	-6000	-3	100	-100	-100	.07
90	325	30	600	20	-3000	-3		-100	-100	.06
90	325	40	-300	-80	-6000	-3	-100	-100	-100	•07
95	314	30	-300	0	0	-3 -3	-100		-100	•10
95 90	325 325	20	-300 -300	-40		-3	100	-100	-100	•10 •04
95	325	30	- 300	-40	-3000	-3				•04
	,,,	,,,	300		3000	,				•04
כחוו	FCT	TVF DI	JSHOVER :	_	ASCENI	r :	000	00 LB		
VEL	RPM		R/C	OAT	ALT					
80	314	30	-300	-60 0	-6000	-3	-100	-100	-100	•16
80 80	314 314	30 30	-300 300	0	-3000	-3	100	100	-100	.14
	314	30	300	0	-3000	-3	100	100	-100	•05
ı										
COLL	_ECT1	VE PL	JSHOVFR (•	LE.VEL	FLIGHT	• 600	00 LB		
VEL	RPM	TORQ	R/C	DAT	ALT			CY-LAT	COLL	TIME
40	314	20	-600	-20 -20	-3000		100		-100	•03
40	314	20	-600	-20	-3000	3	-100		-100	•07
60	314	20	-600	-40	-3000	-6		-100	100	•07
70 80	314 314	20 30	-600 -600	-60 -60	-3000 -3000	-6 -6	-100	-100 -100	-100 -100	•04 •04
80	314	30	-600	-60	-3000	-3		100	-100	0.00
80	314	30	-600	-40	-3000	-3	-100	100	-100	•03
85	314	30	-600	-60	-3000	-3	-100	100	-100	.05
95	314	40	-300	-20	-3000	-3	100	-100	-100	•03
100	314	20	-300	-20	-3000	-3	100	-100	-100	•19
105	314	30	-300	-20	-3000	-3	100	-100	-100	•03
110	314	20	-300	-20 0	-3000 -3000	-6 -6	100	-100 -100	-100 -100	•03 •03
115 115	314	20 30	-300 -300	-20	-3000	-6 -3	100 -100		-150	•05
115	314	30	-300	-20	-3000	-3	-100		-100	•12
120	314	30	-300	-20	-3000	-3	100	-100	-100	•02
						_				
										ŀ

TABLE LXXVIII - Continued

COLI	_ECT I	VE P	JSHOVER •		LEVEL	FLIGHT	• 700	O LB		
VEL	RPM	TORQ	R/C	OAT	AL T	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	304	40	300	-60	-6000	-3	-100	-100	-100	.05
BLW	314	30	-300	-80	-6000	-3	100	-100	-100	.09
BLW	314	30	-300	-60	-6000	-3	-100	-100	-100	.14
BLW	314	30	-300	-60	-6000	-3	100	-100	-100	.13
BLW	314	30	-300	-40	-6000	-3	-100	-100	-100	.18
BLW	314	30	300	-60	-6000	-3	-100	-100	-100	.28
BLW	314	40	-300	-60	-6000	- 3	-100	-100	-100	•09
BLW	314	40	300	-60	-6000	-9	-100	-100	-100	•09
BLW	314	40	300	-40	-6000	-6	-100	-100	-100	•05
BLW	314	40	300	-40	-6000	3	-100	-100	-100	.14
40	314	20	300	-40	-6000	-3	-100	-100	-100	•07
40	314	30	-300	-60	-6000	-3	-100	-100	-100	•11
40	314	40	-300	-60	-6000	3	-100	-100	-100	•13
60	314	30	-300	-80	-6000	-3	100	-100	-100	• 30
60	314	30	-300	0	3000	3	-100	-100	-150	.03
70	314	30	-300	0	3000	3 -3	-100 -100	-100	-100	.03
70	314	30	300 -300	-60 -60	-6000 -6000	-3	-100	100 -100	-100 -100	.12
75 75	314	20	-300	-60	3000	-3	-100	-100	-100	•12
75	314	20 10	-300	20	9000	-6	-100	-100	150	.03
80	325 325	10	-300	20	0	-6	-100	-100	-100	.03
85	314	20	-300	20	3000	-3	-100	-100	-100	.12
85	314	30	300	-60	-6000	-3	-100	100	-100	•09
85	314	30	300	20	0	-3	100	-100	-100	.08
85	325	20	-300	20	ő	-3	-100	-100	-100	.12
85	325	20	600	-20	-3000	~ š	100	-100	-100	.07
90	325	20	-300	20	0	-3	-100	-100	-100	.12
90	325	30	-300	-60	-6000	-3	-100	-100	-150	.05
95	314	10	-1500	0	3000	-3	-100	-100	-100	•09
95	314	20	-1500	0	6000	-3	-100	-100	-100	.11
95	314	30	-600	-60	-6000	-3	-100	-100	-100	.18
95	314	30	-600	-60	-3000	-3	-100	-100	-100	.09
95	314	30	-300	-60	-6000	-3	-100	-100	-150	.05
95	325	20	-1500	0	3000	-3	-100	-100	-100	•07
95	325	30	-600	-80	-6000	-3	-100	-100	-100	.04
95	325	30	-300	-80	BELOW	-3	150	-100	-100	•23
95	325	30	-300	-80	-6000	-3	-100	-100	-100	•07
95	325	40	-600	-80	-6000	-3	100	-100	-100	•07
100	314	30	-600	-60	-3000	-3	-100	100	-150	•07
100	314	30	-300	-60	-3000	-3	-100	100	-100	•10
100	325	30	-300	-80	-6000	-3	-100	-100	-100	•07
105	314	20	300	0	-3000	-3	150	-100	-100	•07
105	314	30	300	-80	BELOW	-3	100	-100	-100	•12 •03
105	314	30	300	0	-3000	-3	100 100	-100 -100	-100 -100	•03
105	325	30	-300	-20	-3000	-3 -3	100	-100	100	0.00
110	314	30	-300	-60 -60	-6000 -6000	-3	100	-100	-100	•17
110	314	40	-300 300	-40	-3000	-3	100	-100	-100	.05
105	314	30	300	-40	- 3000	- ?				• 0 7

TABLE LXXVIII - Continued

כסנו	.ECTI	VE PU	SHOVER •		LEVEL	FLIGHT	800	O LB		
	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
VEL BLW	325	40	-600	-60	-6000	3	100	-100	-100	•05
40	314	40	-300	-40	BELOW	-3	150	-100	-100	•12
40	325	20	-600	-60	-6000	-3	-100	-100	-100	•02
40	325	30	-600	-60	-6000	-3	-100	-100	-100	.09
60	314	30	-300	-40	-6000	-6	100	-100	-100	.09
60	314	30	-300	-40	-6000	-3	100	-100	-100	.09
60	314	30	-300	-40	-6000	-3	150	-100	-100	.14
60	314	40	-300	-40	BELOW	-3	-100	-100	-100	.14
70	314	20	-300	0	-3000	-3	-100	-100	-100	.25
70	314	20	-300	0	-3000	-3	100	-100	-100	• 33
75	314	40	-600	-40	-6000	-3	100	-100	-100	•09
75	325	20	-600	20	-3000	-3	100	-100	100	.28
75	325	20	-600	20	-3000	-3	100	-100	150	•07
75 75	325	20 30	-600 -300	20 -80	-3000	-3 3	150 -100	-100 -100	150 -100	•06 •04
75	325 325	30	300	-80	-6000 -3000	-3	-100	-100	-150	.18
80	314	30	-300	-60	BELOW	-3	100	-100	-100	.12
80	314	30	-300	-40	-6000	-6	100	- 00	-100	.04
80	314	40	-300	-60	BELOW	-3	-100	100	-100	.16
80	325	20	300	-80	-6000	-3	-100	-100	-100	.02
80	325	30	-300	-80	-6000	-6	-100	-100	-100	.04
80	325	30	300	-80	-6000	-3	-100	-100	-100	•09
85	314	20	300	σ	0	-3	100	-100	-100	.08
85	314	30	-300	-40	-6000	-3	150	-100	-100	•10
85	325	20	-300	-80	-3000	-3	-100	-100	-100	•13
85	325	20	-300	20	0	-3	-100	-100	-100	•11
85	325	20	-300	20	0	-3	100	-100	100	•15
85	325	30	-600	-80 -40	-3000 -6000	-3 -6	-100 150	-100 -100	-100 -100	•07 •04
90 90	314 314	30 40	-300 -300	-40	BELOW	-3	-100	100	-100	•09
90	325	30	-900	-80	-6000	-3	-100	-100	-100	.11
90	325	30	-300	-80	-3000	-3	-100	-100	-100	.22
90	325	40	-300	-80	-6000	-3	100	-100	-100	.13
95	314	40	-900	-80	-6000	-3	-100	-100	-100	•03
95	314	40	-300	-80	-6000	-3	-100	-100	-100	•05
95	314	40	-300	-60	-3000	-3	-100	-100	-100	•05
95	325	30	-300	-80	-3000	-3	-100	-100	-100	•09
95	325	40	-600	-80	-6000	-3	100	-100	-100	•05
100	314	40	-300	-80	-3000 0	-3 -3	-100	-100	-100	•28
100 100	325 325	20 20	-600 -600	20 20	0	-3	100 100	-100 -100	-100	•05
105	314	30	-300	-60	-6000	-3	250	-100	100 -100	•16 •03
105	314	40	-300	-60	-6000	-3	100	-100	-100	.19
105	314	40	900	20	0	š	100	100	-100	.03
105	325	10	-600	40	ŏ	-3	100	-100	150	.03
105	325	20	900	20	0	-6	100	-100	-100	.04
110	325	30	900	20	0	-6	100	-100	-100	•04
110	325	40	900	20	0	-3	100	-100	-100	•07
105	314	30	300	-20	-3000	- 3				•07
110	314	30	300	-20	-3000	-6				•03
115	314	30	-600	-60	-6000	-3				•05
115 125	314 314	30	300 1500	-20 -60	-3000	- 6				•03
85	514	30 20	-300	20	-6000 0	-3 -3	100	100	-100	•05 •10
,,,		0	200	2.0	J	- ,	100	100	- 100	• 10

TABLE LXXVIII - Continued

כטו ו	FCT	IVF PL	JSHOVFR •	,	LEVEL	FLIGHT	• 900	00 LB		

VEL	RPM	TORG	R/C	OAT			CY-LNG			TIME
80	314	20	-300	0	-3000	-3	-100	100	-100 -100	•12 •05
85 95	325 314	30 30	-600 -300	-80 -20	BELOW -3000	-3 -3	100 100	-100 -100	-150	•10
100	314	30	-900	-40	-6000	-3	100	-100	-100	•09
100	314	30	-600	-40	-3000	-3	-100	-100	-100	.09
100	314	30	-600	-40	-3000	-3	100	-100	-100	.09
100	314	30	-300	-40	-3000	-3	-100	100	-150	•10
100	314	30	-300	-20	-3000	-3	-100	100	-100	•09
105	314	30	-600	-40	-6000	-3	100	-100	-150	•07
105	314	30 30	-600 -600	-40 -40	-6000 -3000	-3 -3	100 -100	-100 -100	-100 -100	•05 •09
105 110	314 314	30	-300	-40			-100	-100	-100	.03
110	314	40	-300	-40		-3	-100	100	-100	.09
•••										
COL		IVE PL	JSHOVER •)	DESCE		600			
VEL	RPM	TORQ	R/C	OAT		A/S ACC			COLL	TIME
60	314	20	-300	-40	-3000	-6	-100	100	-100	•09
60	314	30	-300	-40	-3000	-3	-100	-100	-100	•09
70	314	20	-600	-40	-3000	-6	-100	-100	100	•13
70 70	314 314	20 30	-300 -300	-40 -40	-3000 -3000	-3 -3	-100 -100	100 100	-100 -100	•03 •05
85	314	20	-600		-3000	-6		-100		.13
100	314	30	-600	-40	-3000	-3	-100	-100	100	.07
			SHOVER •					0 LB		
VEL	RPM	TORO	R/C	OAT		A/S ACC			COLL	TIME
BLW	314	30	-300	0	0	6	100	-100	-100	•11
40 40	314 314	10 10	~600 ~ 600	-40 -20	-6000 -3000	-3	-100 -100	-100	100	•02
40	314	30	-300	-20	-3000	-6	100	-100 -100	100 -100	.03 .11
60	314	10	-600	-20	-3000	~6	-100	-100	100	.09
60	314	20	-600	-40	-6000	-6	-100	-100	100	•09
60	314	20	-600	-20	-3000	3	100	-100	-100	•07
60	314	20	-300	-60	-6000	-3	-100	-100	-100	•04
60 70	325 314	10 20	-600 -600	-20 -20	-3000 -3000	-6 -3	-100 -100	-100	200	•09
70	314	20	-300	-60	-6000	-3	-100	-100 -100	-100 -100	•09 •18
75	314	20	-600	-40	-6000	-3	-100	-100	-100	.14
75	325	10	-600	-20	-3000	-6	-100	-100	150	•04
80	325	10	-600	-20	-3000	-6	-100	-100	150	.04
80	325	20	-600	-20	-3000	-3	100	-100	-100	•09
85	314	30	-600	-40	-6000	-3	-100	-100	-100	•14
85	325	20	-1200	- 80	-3000 BELOW	-3 -3	150	100	-100	•17
85 95	325 314	30 20	-900 -600	-80 -60	BELOW BELOW	-3 -3	-100 -100	-100 -100	-100 150	•13
95	314	30	-900	-80	BELOW	-3	100	-100	-100	14
100	314	30	-900	-80	BELOW	-3	100	-100	-100	.24
100	314	30	-600	-60	BELOW	-3	-100	-100	150	•04
105	314	30	-600	-60	BELOW	-3	100	-100	100	•09

			TABLE L	vvvi	II - C	onclud	od			
			TABLE B.		11 - 0	onciuu	<u> </u>			
COLL	ECT I	VE PL	JSHOVER+		DESCEN	Т•	800	00 LB		
VEL	RPM	TORO	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
40	314	10	-600	0	-3000	-6	100	-100	200	.10
40	314	10	-600	0	-3000	-6	100	-100	250	.07
40	325	10	-900	20	0	-6	-100	-100	250	.07
40	334	BLW	-900	20	0	-3	-100	-100	300	.18
60	314	10	-600	0	-3000	-6	-100	-100	250	.05
60	314	10	-600	0	-300C	-3	100	-100	150	.10
60	325	10	-900	20	0	-6	-100	-100	250	.07
60	325	10	-300	0	0	-6	-100	-100	150	.07
70	314	10	-300	0	0	-3	-100	-100	-100	.08
70	314	20	-600	0	-3000	- 3	-100	-100	-100	.17
70	314	20	-600	0	-3000	-3	100	-100	100	•12
70	325	10	-900	20	0	-6	-100	-100	200	.07
75	325	10	-900	20	0	- 3	100	-100	150	.07
80	325	20	-600	-60	BELOW	-3	-100	-100	-100	•02
80	325	20	-60¢	-60	BELOW	-3	100	-100	-100	.16
90	325	20	-900	-80	-3000	-3	-100	-100	-100	•05
90	325	30	-900	-80	-3000	-3	-100	-100	-100	.22
90	325	30	-300	-80	-6000	-3	-100	-100	-100	•16
90		20	-300	20	-3000	-3	150	100	-100	•07
95		10	-300	0	-3000	-3	100	100	150	•03
COLL	ECTI	VE PL	JSHOVER •		DESCEN	T •	900	0 LB		
VFL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
95	314	20	-900	-40	-6000	-3	100	-100	-100	.14
110	314	40	-300	-40	BELOW	3	150	-100	-100	.03
115	314	30	-300	-40	BELOW	3	200	-100	-100	•03

TABL	E LX)	CIX.	TIME OF TE WEIGH	N PARA					TRIBUTEI SEGMENT		
VEL 75	RPM 325	USHO\ TORQ 20	R/C -300	ASCEN OAT -20 LFVEL	ALT O	A/S	ACC	0 LB CY-LNG -100 0 LB	CY-LAT 100	COLL -100	TIME •16
VEL BLW BLW BLW BLW BLW CYCL	RPM 304 304 314 314 314 314	TORQ 40 40 20 30 40 40 USHOV	R/C -300 300 -300 -300 -300 300	0AT -60 -60 -40 -80 -80 -60 LFVFL	ALT -6000 -6000 -6000 -6000 -6000 FLIGHT	A/S	ACC -3 -3 -6 -3 -3	CY-LNG -100 -100 -100 -100 -100 -100 0 LB	CY-LAT -100 -100 -100 -100 -100 -100	COLL -100 -100 -100 -100 -100	TIME •09 •07 •09 •07 •07 •21
VEL 40 40 40	RPM 314 314 314 314	TORQ 30 30 40 40	R/C -300 -300 -300 -300	OAT -40 -20 -40 -20	ALT BELOW -6000 BELOW -6000	A/S	ACC -3 -3 -3	CY-LNG 100 100 -100 150	CY-LAT -100 -100 -100 -100	COLL -100 -100 -100 -100	TIME •07 •12 •05 •21

TABLE LXXIX - Concluded												
CYCI	IC P	USHOV	FR•	DESCEN	T,	700	0 LB					
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME		
BLW	314	20	-600	0	0	-3	-100	-100	-100	.22		
40	314	20	-600	-20	-3000	-3				.09		
40	314	30	-600	-20	-3000	-3				.09		
40	314	30	-600	-20	-3000	3				• 0'9		
60	314	30	-600	-20	-3000	-3				•0		
75	314	20	-300	-20	-3000	-3				• 09		
80	314	20	-300	-20	-3000	-3				• 04		
85	314	20	-300	-20	-3000	-3				•04		
CYCL	IC P	USHOVI	ER.	DESCEN	Τ•	800	O LB					
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME		
40	314	30	-300	-40	-6000	-3	-100	-100	-100	.02		
60	314	20	-300	-60	-6000	-3	-100	-100	-100	.16		
80	314	10	-900	0	0	-3	-100	-100	-100	.05		
85	314	20	-900	0	0	-3	-100	-100	-100	•10		
90	314	20	-900	0	0	-3	-100	-100	-100	.05		

TABL	E LX		TIME FO RANGES GROSS W	OF TE	N PARA						
COLL	ECTI	VE PU	ILLUP•	ŀ	IOVER •			800	0 LB		
VEL 40	RPM 325	TORQ 30	R/C -600	0AT -40	AL T -6000	A/5	ACC -3	CY-LNG -100	CY-LAT -100	COLL -100	TIMF •09
COLL	ECTI	VE PU	LLUP.	A	SCENT	•		700	0 LB		
VEL	RPM	TORQ	R/C	OAT	AL T	A/5	ACC	CY-LNG	CY-LAT	COLL	FIME
BLW	314	40	-300	20	0		9	-100	-100	-100	•06
BLW	325	20	-300	20	0		-3	-100	-100	100	.09
90	314	30	-900	-40	-3000		-3	-100	-100	-100	.09
90	314	40	-900	-40	-3000		-3	-100	-100	-100	0.00
COLL	ECTI	VE PU	ILLUP•	,	ASCENT	•		800	O LB		
VEL	RPM	TORO	R/C	OAT	AL T	A/5	۸СС	CY-LNG	CY-LAT	COLL	TIME
40	325	20	-600	20	-3000		3	100	-100	100	•03
60	325	10	-600	20	-3000		-3	100	-100	200	.09
110	314	20	-600	-60	-6000		- 3				•10
COLL	ECTI	VE PL	JLLUP,		ASCENT	•		900	O LB		
VEL	RPM	TORO	R/C					CY-LNG	CY-LAT	COLL	TIME
80	325	20	-300	0	-3000		- 3	100	100	-100	•07

		TA	BLE L	XXX -	Contin	ued			
COLLEC	CTIVE PU	LLUP•	L	.FVEL	Fl. I GHT	600	O LB		
40 3 40 3 70 3 75 3	TORO 14 20 14 20 14 20 14 20 14 30	R/C -300 -300 -300 -300 -300	-20	-3000 -3000 -3000 -3000 -3000	A/5 ACC -3 3 3 3	CY-LNG -100 -100 100 100	-100 -100 -100 -100 -100 -100	COLL -100 -100 -100 -100 -100	11MF •16 •05 •02 •13 •13
COLLEC	TIVE PUL	_LUP+	L	EVEL	FLIGHT•	700	0 LB		
		R/C		At. T	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW 3 BLW BLW 3	104 40 114 20 114 20 114 20 114 20 114 20 114 30 114 30 114 30 114 30 114 30 114 30 114 30 114 30 114 30 115 20 116 30 117 20 118 30 118 30	-600 -600 -600 -600 -300 -300 -600 -600	-40 -80 -60 -40 -60 -60 -60 -40 -40 -20 20 20 -80 -80	-6000 -6000 -6000 -6000 -6000 -6000 -6000 -6000 -6000 -6000 -6000	-3 -6 -9 -6 -6 -3 -3 -3 -3 -3 -6 -6 -6 -6 -3	-100 100 -100 -100 -100 -100 -100 -100	-100 -100 -100 -100 -100 -100 -100 -100	-100 -100 -100 -100 -100 -100 -100 -100	.04 .11 .33 .04 .05 .04 .13 .12 .05 .09 .08 .08 .08
COLLEC	TIVE PUL	LUP.	L	FVEL F	FLIGHT.	8000	LB	•	
		R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW 3 BLW 3 BLW 3 40 3 40 3 40 3 40 3 40 3 40 3 40 3 60 3 60 3 60 3 70 3	14 30 14 50 25 30 25 30 14 10 14 20 14 20 14 30 14 30 14 30 25 10 25 10 25 20 14 20 14 20 14 20 14 20 14 20 14 30	-300 -300 -300 -300 -900 -600 -300 -300 -300 -300 -300 -600 -600 -600 -600 -600 -600	-40 -40 -60 -40 -40 -40 -40 -40 -40 -40 -40 -40 -4	-6000 BELOW -6000 -6000 -6000 BELOW BELOW BELOW -6000 -6000 BELOW -6000 BELOW -6000 BELOW -6000 BELOW	6 3 -3 -3 -6 -3 -3 -3 -9 -6 -3 -9 -9 -9 -9	-100 100 -100 -100 -100 -100 100 -100 -	-100 -100 -100 -100 -100 -100 -100 -100	-100 -100 -100 -100 -100 -100 -100 -100	.03 .03 .11 .13 .09 .07 .12 .10 .07 .07 .04 .03 .11 .16 .03 .04 .12 .03

TABLE LXXX - Continued

COLL	ECTI	VE PI	JLLUP.		LFVE	L FLIGH	IT • 80	00 LB	(CONTI	NUFD)
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
70	314	40	300	20	0	-3	100	-100	-100	.03
70	325	20	300	20	0	-3	100	-100	-100	.10
75	314	20	-300	-40	-6000	-6	100	-100	-100	•03
75 75	314	20	-300	-40	-6000	-3 -9	100	-100	-100	•16
75	314 314	20 30	300 -300	-40 -40	BELOW BELOW	-3	-100 100	-100 100	109 -100	•03 •05
80	314	30	-300	-40	BELOW	-3	100	-100	-100	.07
80	325	30	300	-80	-6000	-3	-100	-100	-100	•07
80	325	30	300	-80	-6000	3	-100	-100	-100	.04
85	314	20	-300	-40	BELOW	-3	100	-100	-100	.07
85	325	20	-900	-80	-3000	-3	-100	-100	-100	.18
90	314	20	-300	-40	BELOW	-6	-100	-100	-100	•02
90 90	325 325	30 30	-1200 -900	-80 -80	-6000 -3000	-3 -3	-100 -100	-100 -100	-100 -100	•05 •09
105	314	40	-300	20	0	-3	-100	100	-100	.04
105	314	40	-300	20	ŏ	-3	100	100	-100	.07
105	325	30	-300	20	Ö	-3	100	-100	-100	•06
COLL	ECTI	VE DI	u i iio.		EVEL	EL TOUT	. 000	0 I B		
			JLLUP •			FLIGHT		0 LB	CO : 1	
VFL	RPM	TORG	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
8LW 40	314 325	20 10	-300 -300	0	-3000 -3000	-3	-100 -100	-100	-100	.19
105	314	40	-300	-60	BELOW	-3 -3	150	-100 -100	100 -100	•24
	•••	. •	300	•	0000	-,	100	-100	-100	•07
COLL	ECT	VE PI	JLLUP,		DESCEN	т,	600	00 LB		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
40	314	10	-600	-80	BELOW	-3	-100	-100	100	•29
95	314	20	-1800	-40	-3000	-3	-100	-100	150	•13
100	314	20	-1800	-40	-3000	-3	-100	-100	150	•22
COLL	ECTI	VE PU	LLUP.	C	ESCEN	Τ•	700	0 LB		
				047	ALT	A/S ACC	CY-L NG	CY-LAT	COLL	TIME
VEL BLW	RPM 314	TORQ 20	R/C -300	OAT - 60	-6000	-6	-100	-100	-100	•12
BLW	314	20	-300	-60	-6000	-3	-100	-100	-100	.18
BLW	314	30	-300	-60	-6000	-3	-100	-100	-100	.12
BLW	325	10	-600	20	-3000	-3	-100	-100	150	•14
40	314	20	-300	-60	-6000	-6	-100	-100	100	•12
40	334	10	-600	20	-3000	-3	-100	-100	200	•06
60	314	20	-300 -1200	-60 -20	-6000 0	-6 -3	-100 -100	-100 100	-100 -100	•11 •10
75 80	525 314	10 20	-300	-60	-6000	-6	-100	-100	-100	.07
90	314	10	-300	-60	-6000	-6	-100	-100	100	.07
95	325	30	-300	-80	BELOW	-3	100	-100	-100	•11
95	325	30	-300	-80	-6000	-3	-100	-100	-100	•05
100	314	20	-900	-40	-3000	-3	-100	-100	100	•11
100	314	30	-900	-60	-6000	-3	100	-100	-100	•03
105 100	314 314	20 20	-900 -900	-60 -40	-6000 -3000	-3 -3	-100	100	-100	•16 •14
105	314	30	-900 -900	-40	-3000	-3				.16
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							~			

TABLE LXXX - Concluded

COLL	ECTI	VE PL	JLLUP.	1	DESCEN	T •	800	0 LB		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	325	30	-300	-80	-6000	-6	-100	-100	-100	.07
40	314	BLW	-900	0	-3000	-6	-100	-100	250	•03
40	314	BLW	-900	0	-3000	-3	1 0	-100	200	•08
40	314	BLW	-600	0	0	-6	-100	-100	200	.08
40	314	10	-600	-80	-3000 -6000	-3	-100	-100	150	.08
40 40	325 325	10 20	-300 -300	-80	BELOW	-6 -3	-100 -100	-100 -100	100 -100	•18 •07
60	314	10	-600	0	0	-6	-100	-100	200	.05
60	325	20	-1200	-80	BELOW	-3	-100	-100	-100	.05
60	325	20	-600	-80	BELOW	-3	-100	-100	-100	.04
60	325	20	-300	-60	-3000	-9	-100	-100	-100	•02
60	325	20	-300	-60	-3000	-3	-100	-100	-100	•07
70 75	325 325	10 10	-1200 -1200	-60 -60	-3000 -3000	-3 -3	-100 -100	100 -100	-100 -100	.08 .04
80	325	20	-1200	-60	-3000	-3	-100	-100	-100	.08
85	325	20	-2100	-80	-6000	-3	-100	-100	-100	.07
85	325	20	-1800	-80	-6000	-3	-100	-100	-100	.05
85	325	20	-900	-80	-6000	-3	-100	-100	-100	•05
85	325	20	-600	-80	-6000	3	-100	-100	-100	•05
90	325	30	-600	-80	-6000	-3	100	-100	-100	•07
90	325 314	30 30	-300 -1500	-80 -60	-6000 -6000	-3 -3	-100 -100	-100 -100	-100 -100	•13 •10
95 95	314	30	-900	-60	-3000	-3	-100	-100	-100	.03
95	325	30	-900	-80	-6000	-3	-100	-100	-100	•09
95	314	30	-300	-60	-6000	-3				.14
100	314	20	-300	-60	-6000	- 3				•09
105	314	10	-1500	-40	-3000	-3				•07
105	314	30	-1500	-40	-3000	-3				•09
i										
כחוו	FCTIV	/F PII	LLUP•	0	ESCENT	r	0000			
COLL							9000			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
BLW	314	10	-600	0	-3000	-6	-100	-100	-100	•10
40 40	314 314	20 30	-300 -300	0	-3000 -3000	-3 -3	200 150	-100 -100	-100 -100	•12
40	325	10	-600	Ö	-3000	-3	-100	-100	150	•05 •14
95	314	30	-600	-60	BELOW	-3	150	-100	-100	.09
95	314	30	-600	-40	-6000	-3	100	-100	-100	•03
95	314	30	-600	-40	-3000	-3	-100	100	-100	.03
95	325	20	-600	-40	-3000	-3	-100	-100	-100	•07
100 100	314 314	30	-900 -600	-40	-6000 -3000	-3 -3	100	-100	-100	•10
110	314	30 20	-1500	-40 -40	-6000	-3 -3	-100 150	-100 -100	-100 -100	•07 •05
110	314	30	-1500	-40	-6000	-3	150		-100	.05
			•			_				
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TABLE LXXXI. TIME FOR CYCLIC PULL-UP DISTRIBUTED IN RANGES OF TEN PARAMETERS BY MISSION SEGMENT AND GROSS WEIGHT

										
CYCL	IC P	ULLUP,	ı	HOVER.		700	O LB			
VEL	RPM 314	TORQ 30	R/C -300	0AT -20	ALT O	A/S ACC	CY-LNG -100	CY-LAT	COLL -100	TIME
BLW	314	30	-300	ō	ŏ	-3	-100	-100	-100	.09
BLW	314	30	-300	0	0	-3	-100	100	-100	.09
BLW	325	30	-300	-60	BELOW	-3	100	-100	-100	•09
BLW	325	30	-300	-60	-6000	-3	100	-100	-100	.14
CYCL	IC P	ULLUP •	١	HOVER •		800	O LB			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	30	-600	0	-3000	-3	150	-100	-100	.17
BLW	314	30	-300	-60	-6000	-3	-100	-100	-100	.17
BLW	314	30	-300	20	-3000	-3	-100	-100	-100	.24
BLW	325	30	-300	20	-3000	-3	-100	-100	-100	-11
BLW 40	325 325	40 40	-300 -300	-40 -40	-6000 -6000	3 -3	100 100	-100 -100	-100 -100	.03
70	367	10	300		-0000	-,		100	-100	•••
CYCL	IC P	ULLUP•	ном	/FR•		9000	LR.			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	20	-600	20	0	-3	100	-100	-100	.09
BLW	314	20	-600	20	Ö	-3	150	-100	-100	.09
CYCL	IC P	ULLUP.	,	ASCENT	•	700	0 LB			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	20	-300	-40	-3000	3	-100	-100	-100	.09
CYCL	IC P	ULLUP.	l	LEVEL	FL I GHT	, 700	0 LB			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	30	-300	-60	-6000	-3	-100	-100	-100	.27
BLW	314	30	-300	-60	-6000	-3	100	-100	-100	.12
40	314	20	-300	-80	-6000	-3	-100	-100	-100	• 32
40 60	314 314	30 30	-300 -300	-40 -60	-3000 -3000	-3 -3	-100 -100	-100	-100	.18
70	314	20	-300	-20	-3000	-15	-100	-100 -100	-100 -100	•15 •02
75	314	20	-300	-20	-3000	-3	-100	-100	-100	.08
80	314	20	-300	-20	-3000	-15	-100	-100	-100	.02
80	314	20	-300	-20	-3000	-6	-100	-100	-100	.04
85	314	20	-600	-20	3000	-3	-100	-100	-100	•05
90 90	314 314	20 20	-600 -300	-20 -20	3000 -3000	-3 -6	-100 -100	-100 -100	-100 -100	•14
95	314	20	-300	-20	-3000	-6	100	-100	-100	•06
90	314	20	-300	-20	-3000	-6				.03
95	314	20	-300	-20	-3000	-6				•03
105	314	30	-300	-20	-3000	-6				•06
110	314	40	-300	+20 -20	-3000	-3 -6				•05 •06
115	314	30	-300	-20	-3000	- n				• 00

TABLE LXXXI - Continued

CYCL	IC P	ULLUP •		LEVEL	FL I GH	T• 800	00 LB			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	325	40	-900	-80	-6000	3	-100	-100	-100	•09
40	314	20	-300	-40	-6000	-3	-100	-100	-100	•02
40	325	10	-300	40	0	-6	-100	-100	150	•04
60	314	30	-300	-40	-6000	-6 -3	-100	-100	-100	•10
70	314 325	20 10	-300 -300	-40 20	-6000 0	-3 -6	100 -100	-100 -100	-100 150	•04 •10
75	314	20	-300	-40	-6000	-3	100	-100	-100	.04
75	314	20	-300	ŏ	-3000	-3	-100	-100	-100	•07
75	314	30	-300	-40	-6000	-15	-100	-100	-100	.02
80	314	20	-300	-40	-6000	-3	100	-100	-100	•09
80	314	20	-300	0	-3000	-3	-100	-100	-100	•05
85	314	20	-300	-40	-6000	-6	100	-100	-100	.04
85	314	30	-300	-40	-6000	-15	-100	-100	-100	•02
85	325 325	10 30	-300 -300	20 - 20	0	-6 -3	-100 -100	-100 100	150 -100	•10 •09
85 90	314	30	-300	-40	-6000	-12	-100	-100	-100	•02
90	325	10	-300	20	0000	-6	-100	-100	150	.03
95	314	30	-300	-40	-6000	-12	100	-100	-100	.02
95	314	30	-300	-40	-6000	-6	100	-100	-100	.04
95	325	10	-300	20	0	-6	-100	-100	150	•03
100	314	30	-300	-40	-6000	-6	150	-100	-100	• 04
100	314	30	-300	20	0	-3	100	-100	-100	•04
100	325	20	-300	40	0	-3 -6	-100	-100	-100	•07
105 105	314 314	30 40	-300 -300	-40 -40	-6000 -6000	-3	150 150	-100 100	-100 -100	•04 •09
103	314	40	-300	-40	-0000	3	170	100	-100	•07
ł										
CYCL	IC P	ULLUP.		DESCEN	IT •	600	O LB			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
70	314	30	600	-40	-3000	-3	-100	-100	-100	•09
80	314	30	600	-40	-3000	-6	-100	100	-100	•04
85	314	30	600	-40	-3000	-6	-100	100	-100	•04
90	314	40	600	-40	-3000	-6	-100	-100	-100	•03
CYCL	IC P	ULLUP,		DESCE	NT +	700	00 LB			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
40	325	10	-600	-20	-6000	-6	-100	-100	100	.09
40	325	20	-300	-20	-6000	-3	-100	-100	-100	•03
60	314	20	-600	-80	BELOW	-6	-100	-100	100	•09
60	325	20	-300	-20	-6000	-3	-100	-100	-100	•12
70 70	314 325	20 10	-600 -600	-80 -20	BELOW -60Q0	-6 -6	-100 -100	-100 -100	-100 100	•04 •09
70	325		-300		-6000			-100	100	.12
75	314	20	-600	-80	BELOW	-6	-100	-100	-100	•04
75	325	10	-600	-20	-6000	-6	-100	-100	100	.03
75	325	20	-300	-20	-6000	-3	-100	-100	100	.04
80	325	10	-600	-20	-6000	-6	100	-100	100	•03
80	325	20	-300	-20	-6000	-3	-100	-100	-100	•04
85	314	20	-600	-80	BELOW	-3	-100	-100	-100	•13
85	325	10	-600	-20	-6000	-3	100	-100	-100	•09
90	325 325	20	-600	-20 -20	-3000 -6000	-3 -3	100 100	-100 -100	-100	•09 •22
90 95	314	20 30	-300 -600	-80	BELOW	-3	-100	-100 -100	-100 -100	•22
] "	214	,,,		-00	CLLON		.00	. 00	.00	***
1										

			TAE	BLE LXX	XI - (Conclud	led			
CYCI	LIC F	NITTH	· •	DESCEN	ίΤ• <u>.</u>	700	00 LP			
95 100 105 105 40 60 70	RPM 325 325 314 325 314 314 314	TORQ 20 20 20 30 20 20 20	R/C -600 -300 -1500 -300 -600 -600	OAT -20 -20 -60 -20 -20 -20 -20	ALT -3000 -6000 -6000 -3000 -3000 -3000	A/S ACC -3 -3 -3 -6 -6	CY-LNG 100 100 -100 100	CY-LAT -100 -100 -100 -100	-100 -100 -100 -100	TIME • 24 • 22 • 10 • 17 • 09 • 04 • 04
CYCL	IC P	ULLUP	•	DESCE	NT.	80	00 LB			
VEL 60 60 60 70 70 75 75 75 80 85 85 90 90	RPM 314 314 325 325 325 314 325 314 325 314 325 314 325 314 325 314 325	TORO 10 20 10 20 10 10 30 10 30 30 30 30 20 30 20	R/C -300 300 -300 -900 -600 -900 -300 -600 -900 -300 -600 -900 -300 -900 -300 -300	OAT 0 20 -40 -80 20 -80 20 -40 -40 20 -40 20	ALT -3000 -3000 -3000 -6000 BELOW 0 -3000 BELOW -6000 -6000 -6000 -3000 -6000 -3000	A/S ACC -6 -3 -6 -3 -3 -3 -3 -6 -6 -6 -6 -6 -6 -6	CY-LNG -100 100 -100 -100 -100 -100 -100 -100	CY-LAT -100 -100 -100 -100 -100 -100 -100 -10	COLL 150 -100 250 100 -100 -100 -100 -100 -100 -100 -10	71ME .08 .17 .08 .09 .05 .08 .09 .05 .04 .04 .04 .04 .04 .04 .04 .04
CYCL	IC P	ULLUP	•	DESCEN	iT•	900	00 LB			
VEL 60 75 85	RPM 325 325 325	TORQ 20 30 30	R/C -600 -600 -600	OAT -80 -80	ALT BELOW BELOW BELOW	A/S ACC -3 -3 -3	CY-LNG -100 -100 100	CY-LAT -100 -100 -100	COLL -100 -100 -100	TIME .09 .09 .ng

TABL	E LX	XXII.		TERS				IN RAN NT AND		
FLAR	E• L	EVEL	FLIGHT.	700	00 LB					
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	20	-600	-40	-6000	-3	-100	-100	-100	•16
BLW BLW	314 314	30 40	-600 -600	-40 -40	-3000 -6000	-3 -3	100 -100	-100 -100	-100 -100	.11

FLARE, LEVEL FLIGHT, 8000 LB RPM TORQ OAT VEL R/C ALT A/S ACC CY-LNG CY-LAT COLL TIME 314 BLW 30 -300 -40 -6000 -100 150 -100 .07 -6 40 314 20 -300 .03 -40 -6000 100 -100 -12 100 FLARF. DESCENT. 6000 LB VFL **RPM** TORQ R/C OAT ALT A/S ACC CY-LNG CY-LAT COLL TIME .05 BLW 314 10 300 -20 -3000 -6 -100 -100 -100 BLW 314 20 -1200-40 -3000 -3 -100 -100 100 .09 BLW 314 20 -600 -40 -3000 -3 -100 -100 -100 .17 -40 20 -600 -3000 -3 -100 -100 100 .07 BLW 314 .09 -20 -3000 -100 300 100 -100 **BLW** 314 20 -6 BLW 325 20 -300 -20 -3000 -3 -100 -100 -100 .17 40 314 10 -600 -40 -3000 - 3 -100 -100 150 .19 -40 -3000 -100 -100 100 .03 40 314 20 -1200 FLARE. DESCENT, 7000 LB DAT ALT A/S ACC CY-LNG CY-LAT COLL TIME VEL RPM TORO R/C 314 BLW 10 -600 -80 -6000 -6 -100 -100 100 .07 314 -900 -60 BELOW -100 BLW 20 -3 -100 -100 .29 314 20 -900 -60 -6000 -9 -100 -100 .05 BLW 100 -900 -6000 BLW -3 314 20 -60 100 -100 -100 .05 BLW 314 20 -900 -20 -3000 -3 -100 -100 -100 .05 BLW 314 20 -600 -80 -6000 -3 100 -100 -100 .09 BLW 314 20 -600 0 0 -3 -100 -100 -100 .03 -300 -40 -6000 BLW 314 20 -3 -100 -100 -100 .14 BLW 314 20 -300 -20 -3000 100 -100 100 .09 -6 -300 BLW 314 20 -20 -3000 -3 -100 -100 -100 .16 314 -3000 BL W 20 -300 0 100 -100 -100 -3 .18 -40 BLW 314 30 -900 -3000 -3 -100 -100 -100 .05 BLW 314 30 -600 -80 -6000 3 -100 -100 -100 .04 314 30 -600 -40 -3000 .04 BLW -3 -100 -100 -100 BLW 314 30 -600 -20 -3000 -3 -100 -100 -100 .03 314 -600 20 -3000 3 -100 -100 BLW 30 -100 .03 .09 314 30 -300 -60 -3000 -3 -100 BLW -100 -100 314 30 -300 BLW -60 -3000 -3 100 -100 -100 .17 BLW 314 40 -300 -60 -3000 -6 -100 -100 -150 .03 BLW 325 10 -600 -20 -3000 -6 -100 -100 -100 .09 325 150 10 -600 -3000 BLW 20 -3 -100 .15 -100 325 BLW 10 -300 0 -3000 -3 100 -100 150 .17 BLW 325 20 -600 -20 -3000 -100 -100 -100 .03 -6 325 20 -600 -20 -3 -100 .12 BLW 0 -100 -100 325 20 -600 0 -3 BLW -20 -100 100 -100 .09 BLW 325 20 -600 0 0 -3 -100 -100 -100 .12 325 -300 -80 BLW 20 BELOW -3 -100 -100 -100 .25 BLW 325 20 -300 0 -3000 -3 100 -100 -100 .15

TABLE LXXXII - Continued

325

314

314

314

314

314

20

10

10

10

10

-300

-900

-600

-300

-300

-300

O

-20

-40

-20

0

0

-3000

-3000

-6000

-3000

-3000

-3000

-3

-6

-3

-6

150

-100

-100

100

100

100

-100

-100

-100

-100

-100

-100

-10C

150

100

100

100

150

.15

.16

.25

.10

.30

.08

BLW

•

40

40

40

40

40

TABLE LXXXII - Continued

FLAF	?E•		DESCEN	IT •	70	000 LB	(CONT)	(NUED)		
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
40	325	10	-900	-40	-3000	-3	-100	-100	150	•19
40	325	10	-600	-20	-3000	-9	100	-100	100	.05
40	325	10	-600	-20	-3000	-6	-100	-100	200	•09
40	325 325	10 10	-600 -300	20 -20	-3000 -6000	-3 -3	-100 -100	-100 -100	250 100	•25 •24
40	325	20	-600	-80	BELOW	-3	-100	-100	-100	•22
40	325	20	-600	-20	-3000	-6	-100	-100	100	•09
40	325	20	-300	-60	BELOW	-3	-100	-100	150	•26
40	325 325	20 20	-300 -300	-60 -20	-6000 -6000	-3 -3	-100 -100	-100 -100	-100 -100	•29
BLW	314	30	-600	-80	BELOW	-3	-100	- 100	-100	•24 •12
40	314	10	-600	-80	BELOW	-6				.17
İ										
FLAR	F.	r	FSCENT	•	800	O LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-I NG	CY-LAT	COLL	TIME
BLW	314	10	-900	0	-3000	-3	100	-100	150	.08
BLW	314	10	-600	0	-3000	-3	-100	-100	150	.10
BLW	314	10	-300	0	-3000	-6	100	-100	100	.14
BLW	314	10	-300	20	0	-3	-100	-100	-100	•19
BLW BLW	314 314	20 20	-600 -600	0	-3000 -3000	-3 -3	-100 100	-100 -100	-100 -100	.07 .34
BLW	314	20	-300	-60	-6000	-3	-100	-100	-100	.09
BLW	314	20	-300	0	-3000	-3	-100	-100	-100	.25
BLW	314	20	-300	0	-3000	-3	150	-100	-100	.14
BLW BLW	314	20	-300	0	-3000	-3 -3	150	-100	100	-10
BLW	314 314	20 20	-300 -300	20 20	0	-3	100 150	-100 -100	-100 -100	•34
BLW	314	30	-300	-80	BELOW	-3	-100	-100	-100	.57
BLW	314	30	-300	-60	-6000	-3	-100	-100	-100	.14
BLW	325	10	-600	0	-3000	-3	100	-100	100	-10
BLW BLW	325 325	10 10	-600 -600	20 20	0	-6 -6	-100 -100	-100 -100	150 200	•07 •03
BLW	325	10	-300	0	ŏ	-3	100	-100	150	.25
BLW	325	10	-300	20	0	-6	-100	-100	100	•08
BI.W	325	10	-300	20	0	-3	-100	-100	100	•15
BLW BLW	325 325	20 20	-600 -300	20 -60	0 ~6000	-6 -3	-100 -100	-100 -100	-100 -100	•07 •14
BLW	325	20	-300	ő	0	-3	100	-100	-100	.14
BLW	325	20	-300	20	-3000	-3	-100	-100	150	.28
BLW	325	20	-300	20	-3000	-3	100	-100	100	•13
BLW BLW	325 325	30 30	-600 -300	20 40	0 -3000	-6 -3	-100 -100	-100 -100	-100 -100	•07 •07
BLW	325	30	-300	40	-3000	-3	100	-100	-100	.22
40	314	10	-300	0	-3000	-3	-100	-100	150	.27
40	314	10	-300	20	0	-3	-100	-100	100	•19
40 40	314 314	20 20	-600 -300	-60 -80	BELOW	-6 -3	-100 -100	-100 -100	-100 -100	•10 •35
40	314	20	-300	0	-3000	-3	150	-100	-100	.12
40	325	10	-300	20	-3000	-6	-100	-100	250	.24
60	325	10	-300	-60	BELOW	-3	-100	-100	100	•28
BLW BLW		10 20	-300 -300	0	-3000 -3000	-3 -3	100 100	-100 -100	-100 -100	•12
BLW		30	-300	Ö	-3000	-3	100	-100	-100	.22
40		10	-300	Ŏ	-3000	-3	100	-100	150	.20

TABLE LXXXII - Concluded

LAR	E•	[PESCENT	•	900	00 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	10	-600	20	-3000	-3	100	-100	100	.17
BLW	314	10	-300	0	-3000	-6	100	-100	-100	.09
BLW	314	10	-300	0	-3000	-6	150	-100	-100	.09
BLW	314	20	-600	20	0	-3	150	-100	-100	.09
BLW	314	20	-300	0	-3000	-6	-100	-100	-100	.08
BLW	314	20	-300	0	-3000	-6	150	-100	-100	.12
BLW	314	20	-300	0	-3000	-3	-100	-100	-100	• 05
BLW	314	20	-300	0	-3000	-3	150	-100	-100	•07
BLW	314	30	-600	-60	BELOW	-3	100	-100	-100	.10
BLW	314	30	-600	20	-3000	-3	-100	-100	-100	• 03
BLW	314	30	-600	20	0	-3	100	-100	-100	• 05
BLW	325	20	-300	0	-3000	-6	-100	-100	100	•12
40	314	10	-300	0	-3000	-6	100	-100	-100	•07
40	314	10	-300	0	-3000	-3	100	-100	100	• 09
40	314	20	-600	-60	BELOW	-6	-100	-100	-100	.12
40	325	10	-600	20	0	-3	150	-100	150	.17

TABLE LXXXIII. TIME FOR STEADY STATE DISTRIBUTED IN RANGES OF TEN PARAMETERS BY MISSION SEGMENT AND GROSS WEIGHT

ST	FADY	STATE	GRD	CONDIT	TION.	sono LB	3			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	BLW	BLW	-300	-60	-6000	-3	-100	-100	-100	•60
BLW		BLW	-300	-20	-3000	-3	-100	-100	100	1.09
BLW	BLW	BLW	-300	0	-3000	-3	-100	-100	-100	1.24
BLW	284	10	-300	-60	-6000	-3	-100	-100	-100	.24
BLW	314	10	-300	-40	-3000	-3	-100	-100	150	.85
BLW	314	30	-300	-40	-3000	-3	-100	-100	-100	1.73
1										
STE	EADY	STATE.	GRD	CONDIT	ION 7	000 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	BLW	BLW	-300	-80	BELOW	-3	-100	-100	-100	•91
BLW	BLW	BLW	-300	-60	-6000	-3	-100	-100	-100	1.80
BLW	BLW	BLW	-300	-40	BELOW	-3	-100	-100	-100	1.33
BLW	BLW	BLW	-300	-40	-6000	-3	-100	-100	-100	1.70
BLW	BLW	BLW	-300	-40	-3000	-3	-100	-100	-100	1.95
BLW	BLW	BLW	-300	-20	-6000	-3	-100	-100	100	2.27
BLW	BLW	BLW	-300	-20	-3000	-3	-100	-100	-100	.43
BLW	BLW	BLW	-300	-20	-3000	-3	-100	-100	100	5.82
BLW	BLW	BLW	-300	-20	-3000	-3	-100	-100	150	1.21
BLW	BLW	BLW	-300	0	-3000	-3	-100	-100	-100	7.30
BLW	BLW	BLW	-300	0	-3000	-3	-100	-100	100	2.53
BLW	BLW	BLW	-300	40	0	-3	-100	-100	-100	1.02
BLW	BLW	10	-300	-60	BELOW	-3	-100	-100	-100	•48
BLW	BLW	10	-300	-60	-6000	-3	-100	-100	-100	.44
BLW	BLW	10	-300	-40	-3000	-3	-100	-100	-100	1.53
BLW	274	BLW	-300	40	4 000	-3	-100	-100	150	1.29
BLW	274	10	-300	-20	-6000	-3 -3	-100	-100	150	•52
BLW	284 284	BLW 10	-300 -300	-60	-3000 -6000	-3 -3	-100 -100	-100 -100	150 100	•15 •58
BLW	284	10	-300	-20	-3000	-3	-100	-100	-150	2.62
BLW	284	10	-300	-20	-3000	-3	-100	-100	100	1.17
BLW	284	10	-300	0	-3000	-3	-100	-100	-150	3.72
BLW	284	io	-300	20	-3000	-3	-100	-100	200	.37
BLW	294	10	-300	-60	-6000	-3	-100	-100	100	2.69
BLW	294	10	-300	40	0	-3	-100	-100	200	•56
BLW	304	10	-300	-80	BELOW	-3	-100	-100	-100	.37
BLW	304	10	-300	-20	-3000	-3	-100	-100	300	.43
BLW	304	10	-300	40	0	-3	-100	-100	200	•56
BLW	314	10	-300	-80	BELOW	-3	-100	-100	100	-31
BLW	314	10	-300	-60	-6000	-3	-100	-100	100	•53
BLW	314	10	-300	-60	-6000	-3	-100	-100	200	•54
BLW	314	10	-300	-40	-6000	-3	-100	-100	150	•69
BLW	314	10	-300	-40	-3000	-3	-100	-100	100	-81
BLW	314	10	-300	-20	-3000	-6	-100	-100	250	•02
BLW	314	10	-300	-20	-3000	-3	-100	-100	150	• 36
BLW	314	10	··300	-20	-3000	-3 -3	-100	-100	250	•22
BLW	314	10	-300	-20	-3000	-3	-100	100 100	250	•50
BLW	314	10	-300 -300	-20	-3000	-3	-100 -100		300 -200	•02
BLW	314 314	10 10	-300	0	-3000 -3000	-3	-100	-100 -100	-200 150	2.79
BLW	314	10	-300	0	-3000	-3	-100	-100	200	.33
BLW	314	10	-300	0	-3000	-3	-100	-100	250	.34
BLW	314	10	-300	Ŏ	-3000	-3	-100	-100	250	2.15
, , , , , , , , , , , , , , , , , , ,	314		200	•	v	- 3			2.50	••••
1										

TABLE LXXXIII - Continued

		•								
STE	ADY 5	TATE.	GFD	CONDIT	ION. 7			INUED)		
VEL	RPM	TORO	R/C	DAT	AL (A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314 314	10 20	-300 -300	-60	O BELOW	-3 -3	-100 -100	-100 -100	300 -100	23.19
BLW	314	20	-300	-60	BELOW	-3	-100	-100	100	.77
BLW	314	20	-300	-60	-6000	-6	-100	-100	200	.11
BLW	314	20	-300	-60	-6000	-3	-100	-100	-100	•58
BLW	314	20	-300	-40	-3000	-3	-100	-100	150	•21
BLW	325	10	-300	-60	-6000	- 3	-100	-100	100	.27
BLW	325	10	-300	-60	-6000	-3	-100	-100	200	1.56
BLW	325	10	-300	-20	0	-3	-100	-100	250	2.00
BLW	325	10	-300	20	-3000	-3	-100	-100	250	• 18
BLW	325 334	10 10	-300 -300	20 -40	0 0000-	-3 -3	-100 -100	-100 -100	250 300	•89 •26
BLW	BLW	10	-300	-100	BELOW	-3	-100	-100	300	2.00
BLW	314	10	-300	-100	BELOW	-3				.24
CTE	ADV 6	TATE.	GPD	CONDIT	TON . R	000 LB				
VEL	ADT 3	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	BLW	BLW	-300	-80	BELOW	-3	-100	-100	-100	1.73
BLW	BLW	BLW	-300	-60	-6000	-3	-100	-100	-100	1.62
BLW	BLW	BLW	-300	0	-3000	-3	-100	-100	150	1.56
BLW	BLW	BLW	-300	0	-3000	-3	-100	-100	200	3.58
BLW	BLW	BLW	-300	0	0	-3	-100	-100	150	4.09
BLW	BLW	BLW	-300	20	-3000	-3	-100	-100	-100	3.66
8LW	BLW	BLW	-300	20	-3000	-3 -3	-100	-100	100	1.20
BLW BLW	BLW BLW	BLW BLW	-300 -300	20 20	-3000 -3000	-3	-100 100	-100 -100	150 100	1.81
BLW	BLW	BLW	-300	20	0	-3	-100	-100	-100	1.37
BLW	BLW	BLW	-300	20	ŏ	-3	-100	-100	100	4.47
BLW	BLW	BLW	-300	20	0	-3	-100	-100	150	14.70
BLW	BLW	BLW	-300	40	-3000	-3	-100	-100	-100	4.19
BLW	BLW	BLW	900	20	-3000	-3	-100	-100	-100	•25
BLW	BLW	10	-300	-100	BELOW	-3	-100	-100	-100 -100	3.49 4.73
BLW	BLW	10	-300 -300	-80 -60	BELOW BELOW	-3 -3	-100 -100	-100 -100	-100	1.59
BLW	BLW BLW	10 10	-300	-60	-6000	-3	-100	-100	-100	1.74
BLW	BLW	10	-300	-40	BELOW	-3	-100	-100	-100	1.17
BLW	BLW	10	-300	-40	-6000	-3	-100	-100	100	.87
BLW	BLW	10	-300	-20	-6000	-3	-100	-100	-100	2.88
BLW	274	BLW	-300	0	-3000	-3	-100	-100	250	•34
BLW	284	10	-300	0	-3000	-3	-100	-100	300	•12
BLW	284	19	-300	20	-3000	-3 -3	100	-100 -100	200 250	•10
BLW	284 294	10 10	-300 -300	20 - 60	-6000	-3 -3	-100 -100	-100	100	•22
BLW BLW	294	10	-300	0	-3000	-3	-100	-100	250	.64
BLW	304	10	-300	20	-3000	-3	-100	-100	200	.59
BLW	314	10	-300	-60	-6000	-3	-100	-100	150	1.53
BLW	314	10	-300	0	-3000	-3	-100	-100	300	2.22
BLW	314	10	-300	20	-3000	-3	-100	-100	300	•64
BLW	314	20	-300	-60	BELOW	-3	-100	-100	100	•14
BLW	314	20	-300	-40 -40	-6000 -6000	-3 -3	-100 -100	-100 -100	150 200	•33
BLW	314 325	20 10	-300 -300	-40	-3000	-3 -3	-100	-100	300	. 05
BLW BLW	325	10	-300	20	-3000	-3	-100	-100	250	.65
DE #	,,,	• •				-				

TABLE LXXXIII - Continued

STE	ADY	STATE.	GRD	CONDIT	ION.	8000 LI	3 (CON	TINUED)	
VEL	RPA	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	325		+300	-60	-6000	-3	-100	-100	-100	.15
BLW	325		-300	-40	-6000	-3	-100	-100	200	.74
BLW	334		-300	-60	-6000	-3	-100	-100	-100	.53
BLW	294		-300	-60	-6000	-3	-100	100	-100	.15
BLW	304		-300	-60	-6000	-3				.15
	314	-	-300	-60	-6000	-3				.81
BLW			-300	-40	-6000	-3				•36
BLW BLW	325	BLW	-300	-40	-3000	-3	-100	-100	-100	4.88
		BLW	-300	20	-3000	-3	-100	-100	-100	•36
BLW										
BLW		10	-300	0	-3000	-3	-100	-100	-100	•46
BLW		10	-300	0	-3000	-3	-100	-100	150	•15
CTE	ADV	C T A T C	CD0	CONDIT	7011 -					
SIE	AUY	STATE.	GRD	CONDIT	ION • 9	9000 LB				
VEL	RPM	TORO	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
BLW	BLW	BLW	-300	-20	-3000	-3	-100	-100	150	3.94
BLW	BLW	BLW	-300	-20	-3000	-3	-100	-100	200	1.47
BLW	BLW	BLW	-300	-20	-3000	-3	-100	-100	250	.85
BI.W	BLW	BLW	-300	0	-3000	-3	-100	-100	100	1.99
BLW	BLW	BLW	-300	0	-3000	-3	-100	-100	150	4.34
BLW	BLW	BLW	-300	20	-3000	-3	-100	-100	150	1.43
BI.W	BLW	BLW	-300	20	0	-3	-100	-100	150	4.58
BLW	BLW	10	-300	-60	BELOW	-3	100	-100	150	.79
BLW	BLW	10	-300	-60	-6000	-3	-100	-100	100	1.50
BLW	284	10	-300	-60	BELOW'	-3	-100	-100	150	1.47
BLW	314	10	-300	-60	-6000	-3	-100	-100	250	1.57
BLW	314	10	-300	-20	-3000	-3	-100	-100	350	.78
BLW	314	10	-300	0	-3000	-3	-100	-100	300	3.57
BLW	314	10	-300	20	-3000	-3	-100	-100	300	1.16
BLW	314	10	-300	20	-3000	-3	-100	-100	350	.86
BLW	314	10	-300	20	0	-3	-100	-100	300	41
BLW	314	20	-300	-60	BELOW	-3	-100	-100	250	.59
BLW	325	10	-300	-60	-6000	-3	-100	-100	200	1.32
BLW	325	10	-300	-20	-3000	-3	-100	-100	300	1.15
BLW	325	20	-300	-100	BELOW	-3	-100	-100	-100	45
BLW	325	20	-300	-80	BELOW	-3	-100	-100	100	2.19
BLW	325	20	-300	-60	BELOW	-3	100	-100	300	.86
05.4	327		,,,,	•	DELOW	,			300	•••
STE	ADY	STATE.	HOVE	R •	6	5000 LB				
VEL	RPM	TORQ	R/C	OAT	AL T	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	20	-300	-20	-3000	-3	-100	-100	-100	•07
BLW	314	20	-300	-20	-3000	-3	100	-100	-100	•09
BLW	314	30	-300	-20	-3000	-3	-100	-100	-100	•17
BLW	314	40	-300	40	-3000	-3	-100	-100	-100	.17
BLW	325	30	-300	-20	-3000	-3	-100	-100	-100	.67
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TABLE LXXXIII - Continued

		-1	1101/25		_					
STE	ADY S	TATE.	HOVER	•	7	000 LB				
VEL	RPM	TORO	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	284	30	-300	20	0	-3	-150	-100	-100	.08
BLW	284	30	-300	20	0	-3	-100	-100	-100	•62
BLW	284	30	-300	40	o	-3	-100	-100	-100	-15
BLW	294	30	-300	20	0	-3	-100	-100	-100	.08
BLW	314	20	-300	-60	BELOW	-3	-100	-100	-100	.45
BLW	314	20	-300	20	-3000	-3	-150	-100	-100	•05
BLW	314	30 30	-600 -600	-80 -60	-6000 -6000	-3 -3	-100 -100	-100 -100	-100 -100	•09
BLW	314 314	30	-600	0	-6000	-3	-100	-100	-100	•09 •09
BLW	314	30	-600	ŏ	ŏ	-3	100	-100	-100	•09
BLW	314	30	-600	ŏ	ŏ	3	-100	-100	-100	•09
BLW	314	30	-300	-80	BELOW	-3	100	-100	-100	.09
BLW	314	30	-300	-80	BELOW	6	-100	-100	-100	• 09
BLW	314	30	-300	-60	-6000	-3	-100	-100	-100	.82
BLW	314	30	-300	-60	-6000	-3	100	-100	-100	.09
BLW	314	30	-300	-60	-6000	3	-100	-100	-100	•09
BLW	314	30	-300	-60	-3000	-3	-100	-100	-150	•09
BLW	314	30	-300	-40	-6000	-3 -3	-100 100	-100	-100	•66
BLW BLW	314 314	30 30	-300 -300	-20 -20	-6000 -3000	-9	-100	-100 -100	-100 -100	•09 •02
BLW	314	30	-300	-20	-3000	-3	-100	-100	-100	.17
BLW	314	30	-300	-20	-3000	-9	-100	-100	-100	•02
BLW	314	30	-300	ŏ	-3000	-6	-100	-100	-100	•53
BLW	314	30	-300	ō	-3000	-3	-100	-100	-100	1.73
BLW	314	30	-300	0	-3000	3	-100	-100	-100	•23
BLW	314	30	-300	0	0	-6	-100	100	-100	.09
BLW	314	30	-300	0	0	-3	-100	-100	-100	.17
BLW	314	30	-300	20	-3000	-3	-100	-100	-100	-15
BLW	314	40	-600	-60	-6000	-3	-100	-100	-100	•09
BLW	314	40	-300 -900	-60 -20	-3000	-3 -3	-100 -100	-100 -100	-150 -100	•05 •05
BLW BLW	325 325	20 20	-300	-20	-3000 -6000	-3	-100	-100	-100	•43
BLW	325	30	-900	-20	-3000	-3	-100	-100	-100	.05
BLW	325	30	-300	-80	RELOW	-3	-100	-100	-100	•09
BLW	325	30	-300	-60	BELOW	-3	-100	-100	-100	• 32
BLW	325	30	-300	-60	BELOW	-3	100	-100	-100	.09
BLW	325	30	-300	-60	-6000	-3	-100	-100	-100	.18
BLW	325	30	-300	-40	-6000	-3	-100	-100	-100	.14
BLW	325	30	-300	-40	-6000	-3	100	-100	-100	• 09
BLW	325	30	-300	-20	-6000	-3	-100	-100	-100	.14
BLW	325	30	-300	-20 -20	-6000	-3 -3	100 -100	-100 -100	-100 -100	•52 •57
BLW	325 325	30 30	-300 -300	-20	-3000 -3000	-3	-100	-100	-100	•08
BLW	334	20	-300	-40	-6000	-3	-100	-103	-100	.67
BLW	334	20	-300	-20	-6000	-3	-100	-100	-100	•05
BLW	334	20	-300	-20	-6000	-3	100	-100	-100	.26
BLW	334	30	-300	-40	-6000	-3	-100	-100	-100	.34
BLW	334	30	-300	-40	-6000	-3	100	-100	-100	.29
BLW	334	30	-300	-20	-6000	- 3	-100	-100	-100	.64
BLW	334	30	-300	-20	-6000	-3	100	-100	-100	•10
40	334	20	-300	-20	-6000	-3	100	-100	-100	•59
BLW	314	30	-300	-80	BELOW	-3				-10
BLW	314	30	-300	-80	HELOW	- 5				•05
BLW BLW	314	30	-300	-80	BELOW	-3 -3				

TABLE LXXXIII - Continued

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STE	ADY	STATE.	HOVER.		Я	000 LB				
VEL	RPM	TORQ	R/C	DAT	AL T	A/S ACC	CV_I NG	CY-LAT	COLL	TIME
BLW	304	30	-300	20	-3000	-9	-100	-100	-100	.01
BLW	304	30	-300	20	-3000	-6	-100	-100	-100	.06
BLW	304	30	-300	20	-3000	-3	-100	-100	-100	.59
BLW	314	20	-900	0	-3000	-3	-100	-100	-100	•05
BLW	314	20	-600	0	-3000	-3	100	-100	100	.25
BLW	314	20	-300	-40	-6000	-3	-100	-100	-100	•09
BLW	314	20	-300	0	-3000 -3000	-3 3	-100 -100	-100	-100 -100	.83
BLW BLW	314 314	20 20	-300 -300	20	-3000	-9	-150	-100 -100	-100	•14 •05
BLW	314	20	-300	20	Ö	-6	-100	-100	-100	.08
BLW	314	20	-300	20	ŏ	-3	-100	-100	-100	1.05
BLW	314	20	-300	20	Ö	-3 *	100	-100	-100	.08
BLW	314	30	-600	0	-3000	-3	-100	-100	-100	•02
BLW	314	30	-300	-80	BELOW	-12	-100	-100	-100	•02
BLW	314	30	-300	-80	BELOW	-3	-100	-100	-100	1.09
BLW	314	30	-300 -300	-60	-6000	-3 -3	-100	-100	-100	2.22
BLW	314	30 30	-300 -300	-60 -40	-6000	-3 -3	100 -100	-100	-100 -100	•52 •74
BLW BLW	314	30 30	-300	-40	-6000 -3000	-6	100	-100 -100	-100 -100	.17
BLW	314	30	-300	ŏ	-3000	-3	-100	-100	-100	1.43
BLW	314	30	-300	ŏ	-3000	-3	100	-100	-100	.76
BLW	314	30	-300	0	-3000	3	-100	-100	-100	.08
BLW	314	30	-300	0	-3000	3	- 100	00	-100	•09
BLW	314	30	-300	0	0	-6	-100	-100	-100	.03
BLW	314	30	-300	0	0	-3	-100	-100	-100	•32
BLW	314	30	-300 -300	20	-3000	-3 -4	-100	-100	-100	•26
BLW BLW	314	30 30	-300 -300	20 20	0	-6 -3	-100 -100	-100 -100	-100 -100	.05 1.08
BLW	314	30	-300	20	0	-3	100	-100	-100	•08
BLW	314	30	-300	20	ŏ	3	-100	-100	-100	.07
BLW	314	30	300	-40	-6000	-3	-100	-100	-100	.14
BLW	314	30	300	20	-3000	-6	-100	-100	-100	.07
BLW	314	30	300	20	-3000	-3	-100	-100	-100	.07
BLW	314	40	-600	-20	-6000	-3	200	-100	-100	•12
BLW	314	40	-300	-80	BELOW	-3	-100	-100	-100	.26
BLW	314	40	-300	-60	BELOW	-3 -3	-100	-100	-100	•55
BLW BLW	314 314	40 40	-300 -300	-60 -20	-6000 -6000	-3	-100 100	-100 -100	-100 -100	•17 •16
BLW	314	40	-300	-20	-6000	-3	150	-100	-100	.28
BLW	314	60	600	-20	-6000	-3	-100	-100	-100	.03
BLW	314	60	600	-20	-6000	3	-100	-100	-100	.07
BLW	325	20	-300	0	-3000	-6	-100	-100	-100	•09
BLW	325	20	-300	0	-3000	-3	-100	-100	-100	-69
BLW	325	20	-300	0	-3000	6	-100	-100	-100	•09
BLW	325 325	20 20	-300 -300	0 20	0	-3 -3	-100 -100	-100 -100	-100 -100	•08 •25
BLW BLW	325	20	-300	20	0	- 6	-100	-100 -100	-100	.03
BLW	325	20	300	20	-3000	-3	-100	-100	-100	.06
BLW	325	30	-300	-40	-6000	-3	-100	-100	-100	.48
BLW	325	30	-300	-20	-3000	-3	-100	-100	-100	.09
BLW	325	30	-300	-20	-3000	3	-100	-100	-100	•03
BLW	325	30	-300	0	-3000	-15	-100	-100	-100	•03
BLW	325	30	-300 -300	0	-3000 -3000	-6 -3	-100	-100	-100	•21
BLW	325 325	30 30	-300 -300	0	-3000 -3000	-3 3	-100	-100	-100	•91
BLW	325	30 30	-300	0	-3000 0	-3	-100 -100	-100 -100	-100 -100	-09
BLW	325	30	-300	20	0	-6	-100	-100	-100	•08 •14
									- 100	

TABLE LXXXIII - Continued

STE	ADY 5	TATE.	HOVE	₹•	1	8000 LF	CON!	TINUED)	
VFL	RPM	TOPQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	325	30	-300	20	0	3	-100	-100	-100	.14
BLW	325	40	-300	-60	-6000	-3	-100	-100	-100	• 09
BLW	334	40	-300	-60	-6000	-6	-100	-100	-100	.02
BLW	334	40	-300	-60	-6000	-3	-100	-100	-100	.17
40	314	40	-300	-20	-6000	-3	100	-100	-100	.10
40	325	50	600	-20	-6000	-6	-100	-100	-100	.07
BLW	314	30	-300	-60	-6000	-3				.22
BLW	314	40	-300	-40	-6000	3				.09
BLW	314	40	-300	-40	-6000	12				•02
BLW		30	-300	0	-3000	-3	-100	-100	-100	.12
BLW		30	-300	0	-3000	-6	-100	-100	-100	٠09
BLW		30	-300	0	-3000	-3	-100	-100	-100	•61
BEM		30	-300	0	-3000	3	-100	-100	-100	•09
VEL	RPM	TORQ	HOVER	OAT	ALT	000 LR	CY-LNG	CY-LAT	COLL	TIME
BLW	314	30	-300	-20	-3000	-3	-100	-100	-100	•50
BLW	314	30	-300	0	-3000	-6	-100	-100	-100	•07
BLW	314 314	30 30	-300 -300	0	-3000	-3	-100	-100 -100	-100 -100	1.55
BLW BLW	314	30	-300	0	-3000 -3000	-3 3	100 -100	-100	-100	•36 •10
BLW	314	30	-300	20	-3000	-3	-100	-100	-100	.26
BLW	314	30	-300	20	-3000	3	-100	-100	-100	.09
BLW	314	30	-300	20	0	- 3	-100	-100	-100	.10
BLW	314	30	300	20	-3000	-3	-100	-100	-100	.22
BLW	314	40	-300	-60	BELOW	-3	-100	-100	-100	.34
BLW	314	40	300	-60	BELOW	-3	-100	-100	-100	.07
BLW	314	40	300	~60	-6000	- 3	-100	-100	-100	٠09
BLW	325	30	-300	-80	BELOW	- 3	-100	-100	-100	. 25
BLW	325	30	-300	0	-3000	-3	-100	-100	-100	•77
BLW	325	30	-300	20	-3000	-3	-100	-100	-100	•08
BLW	325	30	-300	20	-3000	3	-100	-100	-100	•07
BLW	325	40	-300	-80	BELOW	-3	-100	-100	-100	.54
BLW	325	40	-300	-80	BELOW	3	-100	-100	-100	•02
BLW BLW	325 325	40 40	-300 -300	-60 -40	BELOW -6000	-3 -3	-100	-100 -100	-100 -100	•17
BLW	325	50	-300	-60	BELOW	-3 -3	-100 -100	-100	-100	40
BLW	325	50	-300	-40	BELOW	-3	-100	-100	-100	17
			***	.0	2000				•••	
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TABLE LXXXIII - Continued

STE	ADY	STATE.	ASCE	NT•	(6000 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	40	900	-40	-3000	-3	-100	-100	-100	.10
40	314	40	900	-60	-6000	-3	100	-100	-100	•10-
40	314	40	900	-40	-3000	-3	-100	-100	-100	.12
60	314	40	900	-60	-6000	-3	-100	-100	-100	.10
70	314	40	900	-80	-6000	-3	-100	-100	-100	.16
70	314	40	900	-60	-6000	-3	-100	-100	-100	•13
75	314	40	900	-80	-6000	-3	-100	-100	-100	.16
80	314	40	900	-80	-6000	-3	-100	100	-100	•09
80	334	30	300	-40	-6000	-3	100	-100	100	.13
85	314	30	600	-20	-3000	-3	-100	-100	-100	•09
90	314	30	600	-20	-3000	-3	-100	-100	-100	•21
90	314	30	600	-20	-3000	-3	100	-100	-100	• 05
90	334	30	300	-40	-6000	-3	100	-100	100	.13
95	314	30	300	-20	0	-3	-100	-100	-150	•05
95	325	30	300	-20	-3000	-3	100	-100	-100	•60
100	314	30	300	-20	-3000	-3	-100	-100	-100	.17
100	325	30	300	-20	-3000	-3	100	-100	-100	1.12
105	314	30	300	-20	-3000	-6	-100	-100	-100	•04
105	314	30	300	-20	-3000	-3	-100	-100	-100	.17
105	314	30	300	-20	-3000	3	-100	-100	-100	.04
105	325	30	300	-20	-3000	-3	100	-100	-100	•09
110	314	30	300	-20	-3000	-9	-100	-100	-100	•04
110	314	30	300	-20	-3000	-6	-100	-100	-100	.04
110	314	30	300	-20	-3000	-3	-100	-100	-100	.83
110	314	30	300	-20	-3000	3	-100	-100	-100	•04
110	325	30	300	-20	-3000	-3	100	-100	-100	.14
115	314	30	300	-20	-3000	-3	-100	-100	-100	• 09
120	314	30	300	-20	-3000	-9	-100	100	-100	•04

TABLE LXXXIII - Continued

								-		
STEA	ADY 5	TATE +	ASCEN	IT•	7	000 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	30	-300	0	-3000	-3	100	-100	-100	•37
BLW	314	30	-300	č	0	3	-100	100	-100	.19
BLW	314	30	300	-60	-6000	-3	-100	-100	-100	.75
BLW	314	30	300	-40	-3000	-3	-100	-100	-100	•69
BLW	314	30	300	0	-3000	-3	-150	-100	-100	•02
BLW	314	30	300	0	-3000	3	-100	-100	-100	.18
BLW	314	30	300	20	-3000	3	-100	-100	-100	•23 •11
BLW	314 314	40	300 300	-60 -60	-6000 -6000	-3 3	100 100	-100 -100	-100 -100	•11
BLW BLW	314	40	600	-60	-6000	-3	-100	-100	-100	•11
BLW	314	40	900	20	0	3	-100	-100	-100	.09
BLW	325	20	300	-20	-3000	6	100	-100	-100	.09
BLW	325	30	-300	0	-3000	-3	150	-100	-100	.08
BLW	325	30	300	-20	-3000	3	100	-100	-100	•05
BLW	325	30	300	-20	-3000	6	100	-100	-100	.10
BLW	325	30	300	20	-3000	-3	-100	-100	-100	•05
BLW	325	30	600	-60	-6000	6	100	-100	-100 -100	•06
BLW	325 325	40 40	600 600	0	-3000 -3000	-3 9	-100 -100	-100 -100	-100 -100	•09 •03
BLW BLW	325 334	40 30	-300	-40	-6000	3	100	-100 -100	-100	.15
BLW	334	40	300	-20	-3000	3	-100	-100	-100	.09
40	314	20	-300	-20	0	-3	-100	100	-100	.34
40	314	30	-300	0	-3000	-3	100	-100	-100	•22
40	314	30	-300	0	-3000	3	150	-100	-100	•12
40	314	30	-300	0	0	6	-100	-100	-100	•05
40	314	30	300	-60	-6700	3	-100	-100	-100	-18
40	314	30	300	0	-3000	3	-150	-100	-100	•18
40	314	30	300	20	-3000	3 -3	-100 -100	-100 -100	-100 -100	•23 •44
40 40	314 314	30 40	600 300	-60	3000 -6000	-3	-100	-100	-100 -100	.09
40	314	40	600	-60	-6000	-3	-100	-100	-100	.17
40	314	40	600	-60	-6000	3	-100	-100	-100	.25
40	314	40	600	-40	-6000	3	-100	-100	-100	•11
40	314	40	600	-40	-6000	12	100	-100	-100	.05
40	314	40	900	20	0	3	-100	-100	-100	-12
40	325	30	300	-20	-3000	3	100	-100	-100	•10
40	325	30	300	-20	-3000	6	100	-100	-100	•04
40	325	30	600	- 60	-6000	6	100	-100	-100 -100	.06
40	325	30	600	-20	-3000 -3000	3	100 100	-100 -100	-100 -100	.04
40 40	325 325	30 30	600 600	0	6000	-3	-100	-100	-100	16
40	334	30	300	-40	-6000	3	100	-100	-100	.14
40	334	30	300	-20	-30C0	3	-100	-100	-100	.09
60	314	20	-300	-40	-3000	-3	-100	-100	-100	0.00
60	314	20	-300	-20	0	-3	-100	100	-100	•10
60	314	20	300	20	-3000	-3	-100	-100	100	•11
60	314	30	-300	-60	-6000	-3	-100	-100	-100	•25
60	314	30	-300	-40	-3000	-3	-100	-100	-100	.17
60	314	30 30	-300	-40	-3000 -3000	3 -3	-100 150	-100 -100	-100 -100	•05 •31
60 60	314 314	30 30	-300 -300	0	-3000	-3 6	-100	100	-100	.05
60 60	314	30 30	300	-60	-6000	3.	-100	-100	-100	.18
60	314	30	300	-20	-3000	-3	150	-100	-100	.10
60	314	30	300	20	0	-3	-100	-100	-100	.15
60	314	30	600	0	3000	-3	-100	-100	-150	.13
60	314	30	600	0	3000	-3	-100	-100	-100	•60
60	314	40	300	-60	-6000	-3	-100	-100	-100	•13

TABLE LXXXIII - Continued

STE	ADY S	STATE.	ASCE	NT,	7	'000 LB	(CONT	INUED)	
VEL	RPM	TORQ	R/C	OAT						TIME
60	314	40	600	-60	ALT -6000	A/S ACC -3	-100	CY-LAT -100	COLL -100	• 09
60	314	40	600	-60	-6000	3	-100	-100	-100	•17
60	314	40	600	-40	-6000	3	-100	-100	-100	.11
60	314	40	900	20	0	3	-100	-100	-100	•12
60	325	20	-300	-20	0	-3	-100	100	-100	1.44
60	325	20	-300	-20	0	3	-100	100	-100	•03
60	325	30	-300	-20	-6000	3	100	-100	-100	•15
60	325	30	300	-20	-3000	3	100	-100	-100	•10
60	325	30	300	20	-3000	-3	-100	-100	-100	•62
60 60	325 325	30 30	300 600	20 -20	-3000	-3 3	100 100	-100 -100	-100 -100	•18 •04
60	325	40	300	-20	-3000	3	100	-100	-100	.04
60	325	40	600	-60	-6000	3	100	-100	-100	.10
60	334	30	300	-40	-6000	-3	100	-100	-100	.07
70	294	20	300	20	-3000	-3	106	-100	-100	.05
70	304	20	300	20	0	-3	100	-100	-100	• 05
70	304	30	300	20	0	-3	100	-100	-100	.04
70	314	20	-300	-20	-3000	-3	-100	100	-100	•12
70	314	20	-300	-20	0	-3	-100	100	-100	•30
70	314	20	~300	-20	0	3	-100	100	-100	•07
70 70	314 314	20 30	300	20	-6000	-3 -3	100	-100	-100 -100	•05 •11
70	314	30	-300 -300	-60 0	-3000	-3	-100 150	-100 -100	-100	.12
70	314	30	-300	ŏ	0	3	-100	100	-100	.03
70	314	30	300	-20	-3000	3	150	-100	-100	•04
70	314	30	300	-20	0	-3	-100	-100	-100	.43
70	314	30	300	0	-3000	-3	-200	-100	-100	•12
70	314	30	300	0	0	-3	-100	-100	-100	•03
70	314	30	300	20	0	-3	100	-100	-100	+04
70	314	30	600	0	3000	-3	-100	-100	-100	•13
70	314	40	600	-80	BELOW	-3	100	-122	-100 -100	•12
70 70	314 314	40	600 900	-60 20	-6000 0	-3 -3	-100 -100	100 -100	-100 -100	•09 •29
70	325	20	-300	-20	-3000	-3	-100	100	-100	.09
70	325	20	-300	-20	-3000	-3	100	100	-100	.14
70	325	20	-300	-20	-3000	3	-100	100	-100	• 05
70	325	20	-300	-20	0	-3	-100	100	-100	.82
70	325	20	-300	-20	C	3	-100	100	-100	•03
70	325	20	-300	-20	C	3	-100	150	-100	•05
70	325	30	-300	-20	0	-3	-100	100	-100	•29
70	325	30	300	20	0	-3	100	-100	-100	• 38
70	325	40	300	-20	-3000	3	100	-100	-150 -100	•04
70 70	334 334	30 30	300 300	-40 -20	-6000 -3000	-3 -3	100 -100	-100 -100	-100 -100	.07 .19
70	334	40	300	-20 -20	-3000	-3	-100	-100	-100	.13
75	314	20	-300	-20	-3000	-3	-100	100	-100	.05
75	314	20	-300	-20	0	-3	-100	100	-100	.20
75	314	20	-300	-20	ŏ	~3	-100	150	-100	.19
75	314	30	-300	-60	-6000	-3	-100	-100	-100	.44
75	314	30	-300	-40	-3000	-3	-100	-100	-100	•17
75	314	30	-300	-40	-3000	3	-100	-100	-100	•05
75	314	30	-300	-20	0	-3	-100	100	-100	•12
75 75	314	30	-300 -300	0	-3000 0	-3 3	150 -100	-100 100	-100 -100	•12 •03
75	314 314	30 30	300	-20	-3011	-3	-200	-100	-100	•28
75	314	30	300	-20	-3000	-3	-150	-100	-100	.24
75	314	30	300	-20	-3000	-3	-100	-100	-100	.04
- ' '	717		700_		- 3000					

TABLE LXXXIII - Continued

STE	ADY	STATE.	ASCE	iΤ,	7	000 LB	(CONT	INUED		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
75	314	30	300	-20	-3000	-3	100	-100	-100	.17
75	314	30	300	-20	-3000	3	100	-100	-100	.04
75	314	30	300	-20	0	-3	-150	-100	-100	• 30
75	314	30	300	0	-3000	-3	-200	-100	-100	.55
75	314	30	300	20	0	-3	-100	-100	-100	•08
75	314	30	600	-20	3000	-3	-100	-100	-100	•31
75	314	30	600	0	3000	-3	-100	-100	-150	•13
75	314	40	300	-60	-6000	-3	-100	-100	-100	•13
75	314	40	600	-80	BELOW	-3 -3	150 -100	-100	-100 -100	• 09
75 75	314 314	40 40	600 600	-60 -40	-6000 -6000	3	-100	-100 -100	-100	•17 •09
75	314	40	900	20	-8000	-3	100	-100	-100	.23
75	325	20	-300	-20	-3000	-3	-100	-100	-100	.05
75	325	20	-300	-20	-3000	-3	-100	100	-100	.8C
75	325	20	-300	-20	0	-6	-100	150	-100	.0.
75	325	20	-300	-20	ŏ	-3	-100	100	-100	•40
75	325	20	-300	-20	Ö	-3	-100	150	-100	.12
75	325	30	-300	-20	0	-3	-100	100	-100	• 38
75	325	30	-300	-20	0	3	-100	100	-100	•03
75	325	30	-300	0	-3000	-3	150	-100	-100	•31
75	325	30	300	-20	-3000	. 3	100	-100	-100	.04
75	325	30	600	-20 -20	-3000	-3	-100	-100	-100	0.00
75	325	30	600	-20 -20	-3000	3 15	-100 100	-100 -100	-100 -150	•04
75	325 325	40 40	300 600	-20 -60	-3000 -6000	3	100	-100	-100	.10
75	334	30	300	-40	-6000	-3	100	-100	-100	.26
80	314	20	-300	-20	-3000	-3	-100	100	-100	.17
80	314	20	-300	-20	0	-3	-100	100	-100	-14
80	314	20	-300	-20	0	-3	-100	150	-100	•03
80	314	30	-300	-40	-3000	-3	-100	-100	-100	•38
80	314	30	-300	-20	0	-3	-100	100	-100	•12
80	314	30	-300	0	-3000	-3	-100	100	-100	•03
80	31	30	-300	0	-3000	-3	150	-100	-100	• 33
80	314	30	-300	0	4000	-3	-100	100	-100	•07
80 80	314 314	30 30	300 300	-60 -40	-6000 -3000	-3 -3	-100 -100	-100 100	-100 -100	•12
80	314	30	300	-20	-3000	-3	-200	-100	-100	.35 1.03
80	314	30	300	-20	-3000	-3	-150	-100	-100	49
80	314	30	300	-20	-3000	-3	-100	-100	-100	.04
80	314	30	300	-20	-3000	-3	100	-100	-100	.09
80	314	30	300	-20	0	-3	-150	-100	-100	• 55
80	314	30	300	-20	0	-3	-150	-100	100	.49
80	314	30	300	-20	0	-3	100	-100	-100	•26
80	314	30	300	0	-3000	~3	-200	-100	-100	•10
80	314	30	300	- 30	-3000	-3 -3	-150	-100	-100	•18
80 80	314 314	30 30	600 600	-20 -20	0	-3 -3	-100 -100	-100 -100	-150 -100	•13 •25
80	314	30	600	0	3000	-3	-100	-100	-150	.98
80	314	40	600	-80	BELOW	-3	100	-100	-150	.17
80	314	40	600	-60	-6000	-3	-100	-100	-100	.09
80	314	40	600	-60	-6000	-3	-100	100	-100	•09
80	314	40	600	-60	-6000	3	-100	-100	-100	•04
80	325	20	-300	-20	-3000	-3	-100	100	-100	1.05
80	325	20	-300	-20	-3000	-3	100	100	-100	•10
80	325	20	-300	-20	-3000	3	100	100	-100	• 07
80	325	20	-300	-20	0	-3	-100	100	-100	• 96

TABLE LXXXIII - Continued

				_	_					
STE	ADY 5	TATE.	ASCEN	IT •	7	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
80	325	20	-300	-20	0	3	-100	100	-100	•05
80	325	20	-300	0	-3000	-3	-100	100	-100	•26
80	325	30	-300	-20	-6000	-3	150	-100	-100	•16
80	325	30	-300	-20	0	-3	-100	100	-100	• 33
80 80	325 325	30	-300	0	-3000	-3 -3	-100	-100	-100	•19
80	325	30 30	-300 300	0 -20	-3000 -3000	-3 -3	100 -100	100 -100	-100 -100	•10
80	325	30	300	-20	-3000	3	-100	-100	-100	•39 •07
80	325	30	300	-20	-3000	3	100	-100	-100	•04
80	325	30	600	-20	-3000	3	-100	-100	-100	.04
80	325	40	300	-20	-3000	15	100	-100	-150	•00
85	314	20	-300	-20	-3000	-6	-100	100	-100	•03
85	314	20	-300	-20	-3000	-3	-100	100	-100	•12
85	314	20	-300	-20	-3000	-3	100	100	-100	.07
85	314	30	-300	0	-3000	-3	100	100	-100	.19
85	314	30	300	-40	-3000	-3	-100	100	-100	•53
85	314	30	300	-20	-3000	-3	-200	-100	-100	•51
85	314	30	300	-20	-3000	-3	-100	-100	-100	•13
85	314	30	300	-20	-3000	-3	100	-100	-100	•40
85	314	30	300	-20	0	-3	-200	-100	-100	• 56
85	314	30	300	-20	0	-3	-150	-100	-100	• 36
85	314	30	300	-20	0	-3	100	-100	-100	•09
85	314	30	300	0	-3000	-3	-150	-100	-100	-15
85 85	314 314	30 30	600 600	-40 -20	0	-3 -3	-100 -100	-100	-150	•18
85	314	30	600	0	3000	-3	-100	-100 -100	-150 -150	•13
85	314	40	-300	-40	-3000	-3	-100	-100	-100	•18 •26
85	314	40	600	-60	-6000	-3	-100	-100	-100	.26
85	314	40	600	-60	-6000	-3	-100	100	-100	.17
85	325	20	-300	-20	-3000	-9	100	100	-100	.02
85	325	20	-300	-20	-3000	-6	100	100	-100	.06
85	325	20	-300	-20	-3000	-3	-100	100	-100	.88
85	325	20	-300	-20	-3000	-3	100	100	-100	• 38
85	325	20	-300	-20	-3000	3	100	100	-100	•12
85	325	20	-300	-20	0	- 3	-100	100	-100	•33
85	325	20	-300	0	-3000	- 3	100	100	-100	.15
85	325	30	-300	-80	BELOW	-3	-100	-100	-100	• 36
85	325	30	-300	-20	-3000	-3	100	100	-100	•13
85	325	30	-300	-20	- 3000	-6	-100	100	-100	•03
85 85	325 325	30 30	-300 -300	0	-3000 -3000	-3 -3	100 150	-100 -100	-100 -100	•14 •25
85	325	30	-300	0	-3000	-3	150	100	-100	•25
85	325	30	300	-20	-3000	-3	-100	-100	-100	.43
85	325	30	300	-20	-3000	-3	-100	100	-100	.81
85	325	30	300	-20	-3000	3	100	-100	-150	.04
85	325	30	300	-20	-3000	3	100	-100	-100	.04
85	325	40	-300	-80	BELOW	-3	-100	-100	-100	1.06
85	325	40	600	-80	-6000	-3	-100	-100	-100	•11
85	325	40	600	-60	-6000	-3	100	-100	-100	.42
90	314	20	-300	-20	-3000	-6	-100	100	-100	•07
90	314	20	-300	-20	-3000	-3	-100	100	-100	•07
90	314	30	-300	-40	-3000	+3	-100	-100	-100	•29
90	314	30	-30C	-20	-3000	-3	100	-100	-100	•09
90	314	30	-300	-20	-3000 -3000	-3	100	100	-100	•12
90 90	314 314	30 30	300 300	-43 -20	-3000 -3000	-3 -3	-100 -200	100 -100	-100 -100	•50 •56
70	214	30	300	-20	- 3000	-5	-200	-100	-100	• 96

TABLE LXXXIII - Continued

				. •	7	000 LB	CONT	TAILEDY		
SIE	DY 5	IAIL	ASCEN	11.9	,	טטט בה	(CON)	INCEUT		
VEL	RPM	10RQ	R/C	OAT	ALT	A/S ACC	CY-I NG	CY-LAT	COLL	TIME
90	314	30	300	-20	-3000	-3	-150	-100	-100	•12
90	314	30	300	-20	-3000	-3	-100	-100	-100	.13
90	314	30	300	-20	-3000	-3	100	-100	-100	•26
90	314	30	300	-20	-3000	3	100	-100	-100	•04
90	314	30	300	-20	0	-6	-100	-100	-100	•13
90	314	30	300	-20	ŏ	-3	-100	-100	-100	.13
90	314	30	600	-60	-6000	-3	-100	100	-100	.09
90	314	30	600	0	3000	-3	-100	-100	-150	.13
90	314	40	-300	-60	-3000	-3	-100	-100	-100	.17
90	314	40	-300	-40	-3000	-3	-100	-100	-100	.17
90	314	40	300	-60	-6000	-3	-100	-100	-100	.70
90	314	40	300	-40	-3000	-3	-100	-100	-100	2.07
90	314	40	300	-40	-3000	-3	-100	100	-100	.24
90	314	40	600	-80	BELOW	-3	100	-100	-150	•17
90	314	40	600	-80	-6000	-3	-100	-100	-100	.42
90	314	40	600	-60	-3000	-3	-100	100	-100	•09
90	314	40	600	-40	-3000	-3	-100	-100	-100	• 26
90	314	40	600 600	-40 -60	0 -6000	-3 -3	-100 -100	100 - 100	-150 -100	•09
90	314	50 20	-300	-20	-3000	-9	100	100	-100	•09 •02
90 90	325 325	20	-300	-20	-3000	-6	-100	100	-100	•03
90	325	20	-300	-20	-3000	-6	100	100	-100	•03
90	325	20	-300	-20	-3000	-3	-100	100	-100	.16
90	325	20	-300	-20	-3000	-3	100	100	-100	.28
90	325	20	-300	ō	-3000	-3	100	100	-100	.06
90	325	30	-300	-20	-3000	-6	100	100	-100	.03
90	325	30	-300	-20	-3000	-3	100	100	-100	08
90	325	30	-300	0	-3000	-3	150	-100	-100	.25
90	325	30	-300	0	-3000	-3	150	100	-100	• 35
90	325	30	300	-20	-3000	-3	-100	-100	-100	•26
90	325	30	300	-20	-3000	-3	-100	100	-100	•22
90	325	30	300	-20	-3000	-3	100	-100	-250	•09
90	325	30	300	-20	-3000	3	100	-100	-100	•03
90	325	30	600	-20 -20	-3000	-3	-100	-100	-100	•05
90 90	325 325	30 40	600 -300	-100	3000 BELOW	-3 -3	-100 100	-100 -100	-200 -100	•53 •16
90	325	40	-300	-80	BELOW	-3	700	-100	-100	1.36
90	325	40	600	-80	-6000	-3	-100	-100	-100	.35
90	325	40	600	-80	-6000	-3	100	-100	-100	.90
90	325	40	600	-60	-6000	-3	100	-100	-100	.23
95	314	30	-300	-20	-3000	-6	100	100	-100	•03
95	314	30	300	-20	-3000	-6	100	-100	-100	•10
95	314	30	300	-20	-3000	-3	100	-100	-100	•42
95	314	30	300	-20	-3000	3	100	-100	-100	•04
95	314	30	600	-80	-6000	-3	-100	-100	-100	-18
95	314	30	600	-60	-3000	-3	-100	100	-100	•07
95	314	30	600	-20	3000	-3	-100	100 -100	-200	•09
95 95	314	30 40	600 -300	-60	3000 -3000	-3 -3	-100 -100	-100	-150 -100	•13 •09
95	314 314	40	300	-60	-6000	-3	-100	-100	-100	.07
95	314	40	300	-40	-3000	-3	-100	-100	-100	.47
95	314	40	600	-80	-6000	-3	-100	-100	-100	.67
95	314	40	600	-60	-6000	-3	-100	-100	-100	.17
95	314	40	600	-40	-3000	-3	-100	-100	-100	.64
95	314	50	600	-40	-6000	-3	-100	-100	-100	.17
95	325	30	-300	-20	-6000	-3	100	-100	-100	.16
95	325	30	-300	-20	-3000	-3	100	100	-100	•04

TABLE LXXXIII - Continued

				_	_					
STE	ADY 5	TATE.	ASCEN	1 9	7	000 LB	TACONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
95	325	30	-300	-20	0	-3	-100	-100	-100	1.14
95	325	30	-300	-20	0	-3	-100	100	-100	.22
95	325	30	-300	0	-3000	-3	150	-100	-100	• 36
9'5	325	30	300	-20	-3000	-3	-100	-100	-100	•09
95	325	40	600 600	-80 -80	-6000	-3	-100	-100	-100	•02
95 100	325 314	40 30	-300	-20	-6000 -3000	-3 -3	100 100	-100 100	-100 -100	•57 •09
100	314	30	-300	0	-3000	-3	100	-100	-100	•20
100	314	30	-300	0	-3000	-3	150	-100	-100	.86
100	314	30	-300	0	0	-3	150	-100	-100	.33
100	314	30	300	-20	-3000	-6	100	-100	-100	.04
100	314	30	300	-20	-3000	-3	-100	-100	-100	•09
100	314	30	300 300	-20	-3000	-3	100	-100	-100	•04
100	314 314	30 30	300	-20 -20	0	-3 -3	-100 -100	-100 100	-100 -100	•13 •34
100	314	40	-300	-60	-3000	-3	-100	-100	-100	• 40
100	314	40	600	-80	BELOW	-3	100	-100	-100	•09
100	314	40	600	-80	BELOW	-3	150	-100	-100	.03
100	314	40	600	-60	-6000	-3	100	-100	-100	.05
100	314	40	600	-60	-3000	- 3	-100	-100	-100	1.44
100	314	40	600	-40	-3000	-3	-100	-100	-100	•22
100	314	40	600	-40	-3000	-3	100	-100	-100	•17
100	314	50	600	-40	-3000	-3	100	-100	-100	•17
100 105	325 304	30 30	-300 300	-20 -20	0	-3 -3	-100 -100	100 -100	-100 -100	•26 •09
105	314	30	-300	0	-3000	-3	150	-100	-100	1.00
105	314	30	300	-20	-3000	-6	100	-100	-100	.04
105	314	30	300	-20	-3000	-3	100	-100	-100	.26
105	314	30	300	-20	0	-6	-100	-100	-100	.13
105	314	30	300	-20	0	-3	-100	-100	-150	.26
105	314	30	300	-20	0	-3	-100	-100	-100	•09
105	314	30	600	-20	-6000	-3 -3	100	100	-150	•10
105 105	314 314	40 50	600 600	-40 -60	-3000 -3000	-3	100 100	-100 -100	-100 -100	•21 •62
105	314	50	600	-40	-3000	-3	100	-100	-100	.17
110	314	30	300	-20	-3000	-3	-100	-100	-100	•09
110	314	30	300	-20	-3000	-3	100	-100	-100	10
110	314	30	600	-20	-6000	-3	100	-100	-150	•16
110	314	50	600	-40	-3000	-3	100	-100	-100	•09
80	314	40	300	-80	-3000	- 3				.14
80 85	314 314	40 30	300 300	-80 -60	-3000 -3000	3 - 3				•06 •06
85	314	40	300	-80	-6000	-3 -3				.08
90	314	30	300	-60	-3000	-3				.06
90	314	30	300	-20	0	3				.16
90	314	30	300	-20	0	6				•03
90	314	40	300	-80	-3000	-3				• 34
90	314	40	300	-80	-3000	3				•06
95 95	314	30	-300 300	-40 -80	-3000 -3000	- 3 - 3				•14
95	314 314	30 30	300	-80	-3000	-3				.34
95	314	30	300	-80	-3000	3				.03
95	314	30	300	-60	-3000	-6				.07
95	314	30	300	-60	-3000	- 3				•06
95	314	30	300	-20	0	-6				•12
45	314	30	300	-20	0	6				•03
95	314	40	300	-80	-6000	-3				•29

TABLE LXXXIII - Continued

STEA	DY S	STATE.	ASCEN	Τ,	7	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	RIC	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
95	314	40	300	-80	-3000	- 3				.27
100	314	30	-300	-40	-3000	- 3				.17
100	314	30	-300	-40	-3000	-3				•09
100	314	30	-300	-40	-3000	3				•05
100	314	30	300	-80	-3000	- 3				•20
100	314	30	300	-80	-3000	3				•03
100	314	30	300	-60	-3000	-3				•13
100	314	30	300	-40	0	-3				•16
100 100	314 314	30 30	300 300	-20 -20	0	-6 3				•12 •16
100	314	40	300	-80	-6000	-3				.25
100	314	40	300	-80	-3000	-6				.05
100	314	40	300	-80	-3000	-6				.07
100	314	40	300	-80	-3000	-3				.05
100	314	40	300	-80	-3000	-3				•32
100	314	40	300	-80	-3000	9				.02
100	314	40	300	-60	-6000	-3				.47
100	314	40	300	-40	-3000	-3				.26
100	314	40	300	-40	0	-3				•12
105	314	30	-300	-40	-3000	-6				•12
105	314	30	-300	-40	-3000	-3				•66
105	314	30	300	-80	-3000	9				•02
105	314	30	300	-60	-3000	-6				•12
105	314	30	300	-60	-3000	-3				-07
105	314	30	300	-40	3000	-3				-16
105	314	40	300	-80	-3000	-6 -3				•07
105 105	314 314	40 40	300 300	-80 -80	-3000 -3000	-3				.24
105	314	40	300	-40	-3000	-3				.90
105	314	40	300	-40	-3000	-3				90
105	314	40	300	-40	0	-3				.09
110	314	30	-300	-40	-3000	-6				.04
110	314	30	-300	-40	-3000	-3				-28
110	314	30	-300	-40	-3000	3				• 05
110	314	30	300	-80	-3000	-3				.28
110	314	30	300	-80	-3000	-3				.21
110	314	30	300	-80	-3000	-3				•05
11C	314	30	300	-60	-3000	-6				•05
110	314	30 40	300	-20 -80	-3000	-3 -3				.21
110 110	314 314	40 40	300 300	-80 -80	-3000 -3000	-3				.18
110	314	40	300	-40	-3000	-3				.09
115	314	30	-300	-40	-3000	-6				.08
115	314	30	-300	-40	-3000	-3				•21
115	314	40	300	-80	-3000	- 3				•07
115	314	40	300	-80	-3000	-3				•04

TABLE LXXXIII - Continued

										
	ADY	STATE.	ASCEN	1T •	8	000 LB				
VFL	RPM	TORQ	R/C	OAT	ALT			CY-LAT	COLL	TIME
BLW	304	40	600	20	-3000	-3	-100	-100	-100	•04
BLW	314	20	300	0	-3000	3	-100	-100	-100	.08
BLW	314 314	30 30	-300 -300	0 20	-3000 0	6	100 -100	-100 -100	-100 -100	•08
BLW	314	30	300	20	-3000	3	-100	-100	-100	.08 .14
BLW	314	40	300	-60	-6000	-3	-100	-100	-100	•09
BLW	314	40	300	-60	-6000	3	100	-100	-100	.10
BLW	314	40	300	20	-3000	-3	-100	-100	-100	.07
BLW	314	40	300	20	-3000	3	-100	-100	-100	•01
BLW	314	40	300	20	-3000	6	-100	-100	-100	•07
BLW	325	30	300	-20	-3000	3	100	-100	-100	.14
BLW	325 325	30 40	300 300	-60	-3000 -6000	3	100 -100	-100 -100	-100 -100	•17 •07
BLW	334	40	300	-60	-6000	-3	-100	-100	-100	.09
BLW	334	40	300	-60	-6000	3	100	-100	-100	.17
40	304	40	600	20	-3000	6	-100	-100	-100	.03
40	304	50	600	20	-3000	-3	100	-100	-100	.13
40	314	20	-300	20	0	-3	-100	-100	-100	.25
40	314	20	-300	40	0	-3	100	-100	-100	•06
40	314	20	300	C	- 3000	-3	-100	-100	-100	.08
40	314	20 20	300 300	0	-3000 0	3 -3	-100 100	-100 -100	-100	.08
40	314 314	20	600	20 0	0	-3	100	-100	-100 -100	.42
40	314	30	-300	ŏ	-3000	-3	150	-100	-100	.21
40	314	30	-300	20	0	-3	-100	-100	-100	.08
40	314	30	-300	40	Ŏ	-3	-100	-100	-100	.55
40	314	30	300	-40	-6000	-3	-100	-100	-100	•12
40	314	30	300	0	-3000	-3	-100	-100	-100	•14
40	314	30	600	0	-3000	-3	100	-100	-100	•07
40	314 314	30 30	600 600	0	-3000 0	-3 -3	150 150	-100 -100	-100 -100	•15 •36
40	314	30	600	ŏ	Ŏ	3	100	-100	-100	.06
40	314	40	300	-60	BELOW	3	-100	-100	-100	.16
40	314	40	300	-60	-6000	3	100	-100	-100	•09
40	314	40	300	20	-3000	6	100	-100	-100	•07
40	314	40	600	-40	-6000	3	-100	-100	-100	•13
40	325	30	-300	40	0	-3	100	-100	-100	•29
40	325	30	300	-20	-3000	-3	150	-100	-100	•22
40 40	325 325	30 30	300 600	0 -80	-3000 -3000	-3 -3	150 -100	-100 -100	-100 -150	•13 •18
40	325	30	600	-60	-3000	-3	-100	-100	-150 -150	.57
40	325	30	600	-60	0	-3	-100	-100	-200	13
40	325	30	600	-60	Ö	-3	-100	-100	-150	•02
40	325	30	600	-60	0	-3	-100	-100	-100	.18
40	325	40	300	-60	-6000	3	-100	-100	-100	.27
40	325	40	600	-80	BELOW	-3	-100	-100	-100	-18
40	325 325	40 40	600 600	-80 -80	-6000 -6000	-3 -3	-100 -100	-100 -100	-150 -100	•18 •18
40	325	40	600	-80	-3000	-3 -3	-100	-100	-150	.27
40	325	40	600	-60	-6000	-3	-100	-100	-100	.25
40	325	40	600	-60	-3000	-3	-100	-100	-150	.52
40	325	40	600	-60	0	-3	-100	-100	-150	.68
40	325	40	900	-80	-6000	-3	-100	-100	-150	•11
40	325	40	900	-80	-6000	-3	-100	-100	-100	•29
40	334	40	300	-60	-6000	-3	100	-100	-150	•14
60	314	20	-300	0	0	-3 -3	100	-100	-100	•15
60 60	314 314	20 20	-300 300	20 0	-3000	-3 -3	-100 -100	-100 -100	-100 -100	.88 .14
80	214	20	300		-3000		-100	-100	-100	• 1 -

TABLE LXXXIII - Continued

STE	ADY S	TATE,	ASCE	NT.	Я	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
60	314	20	300	20	0	-3	100	-100	-100	1.68
60	314	30	-300	-60	-6000	3	100	-100	-100	.11
60	314	30	-300	0	-3000	-3	150	-100	-100	.21
60	314	30	300	0	-3000	-3	-100	-100	-100	.14
60	314	30	300	0	- 3000	-3	100	-100	-100	•12
60	314	30	600	-40	-6000	3	-100	-100	-100	.13
60	314	30	600	0	0	-3	100	-100	-100	• 58
60	314	40	300	-60	BELOW	-3	-100	-100	-100	• 29
60	314	40	300	-60	-6000	-3	100	-100	-100	•12
60	314	40	300	20	-3000	-3	100	-100	-100	•07
60	325	30	-300	40	0	-3	100	-100	-100	•14
60	325	30	300	-80	-6000	-3	-100	-100	-100	•12
60	325	30	300	-20	-3000	-3	150	-100	-100	•22
60	325	30	300	0	-3000	-3	100	-100	-100	•22
60	325	30	300	0	-3000	-3	150	-100	-100	•13
60	325	30	300	0	0	-3	-100	-100	-100	•10
60	325	30	300 300	0	0	-3 -3	-100 100	100 -100	-100 -100	•16 •23
60	325 325	30 30	600	-80	-6000	-3	-100	-100	-150	1.26
60	325	30 ⁻	600	-80	-3000	-3	-100	-100	-150	•91
60	325	30	600	-80	-3000	3	-100	-100	-150	.09
60	325	30	600	-60	0	-3	-100	-100	-200	•54
60	325	30	600	-60	ŏ	-3	-100	100	-200	.25
60	325	30	600	Ö	ŏ	3	100	-100	-100	•06
60	325	40	-300	-40	-6000	3	-100	-100	-100	•07
60	325	40	300	-80	-6000	-3	-100	-100	-100	.18
60	325	40	300	-60	-6000	-3	-100	-100	-100	•27
60	325	40	600	-80	-6000	-3	-100	-100	-100	.18
60	325	40	600	-80	-3000	-3	-100	-100	-150	•09
60	325	40	600	-60	-3000	-3	-100	-100	-100	•05
70	304	30	-300	20	-3000	-3	100	-100	-100	•10
70	314	20	-300	0	0	-3	100	-100	-100	• 15
70	314	20	-300	20	0	-3	-100	-100	-100	•60
70	314	20	300	0	-3000	-3	-100	-100	-100	•25
70	314	20	300	0	0	-3	-100	-100	-100	•27
70	314	20	300	20	0	-3	100	-100	- 100	•64
70	314	30	-300	0	-3000	-3 -3	100 -100	-100 -100	-100 -100	.17
70	314	30	300	0	-3000 -3000	-3	100	-100	-100	12
70	314	30 40	300 300	-60	BELOW	-3	100	-100	-100	.09
70 70	314 314	40	300	20	-3000	-3	100	-100	-100	.04
70	314	40	900	20	0000	-3	100	-100	-100	.25
70	325	20	-300	20	ŏ	-3	-100	-100	-100	.14
70	325	20	-300	20	Ŏ	-3	100	-100	-100	•21
70	325	20	-300	40	ō	-3	100	-100	-100	-61
70	325	30	-300	40	Ō	-3	100	-100	-100	•55
70	325	30	300	-80	-6000	-3	-100	-100	-150	•13
70	325	30	300	-80	-6000	-3	-100	-100	-100	•17
70	325	30	300	0	-3000	-3	-100	-100	-100	-15
70	325	30	300	0	-3000	-3	100	-100	-100	•67
70	325	30	300	0	-3000	-3	150	-100	-100	•21
70	325	30	300	0	0	-3	-100	100	-100	•33
70	325	30	600	~80	-6000	-3	-100	-100	-150	•27
70	325	30	600	-80	-3000	-3 -3	-100	-100 100	-150 -200	.36
70	325	30	600	-60	-3000	-3 -3	-100 -100	100	-200	.09
70	325	30	600	-60 -60	0	-3	-100	100	-150	.18
70 70	325	30 40	600 -300	-60 -40	-6000	3	-100	-100	-100	.07
- 70	325	70	-300	- 70	- 0000					

TABLE LXXXIII - Continued

STE	ADY S	TATE.	ASCEN	Τ.	81	000 LB	(CONT	INHEDA		<u>-</u>
VEL	RPM	TORQ	R/C	OAT	AL T	A/S ACC		CY-LAT	COLL	TIME
70	325	40	300	-80	-6000	-3	-100	-100	-100	•09
70	325	40	300	-60	-6000	-3	-100	-100	-100	•09
70	325	40	600	-80	-6000	- 3	100	-100	-100	.18
70	325	40	600	-80	-3000	-3	-100	-100	-150	.48
70	334	40	300	-60	-6000	-3	100	-100	-150	.14
75	304	30	-300	20	-3000	-3	150	-100	-100	.13
75	314	20	-300	0	-3000	-3	100	-100	-100	.20
75	314	20	-300	0	0	-3	100	-100	-100	.13
75	314	20	-300	20	0	-3	-100	-100	-100	.23
75	314	20	300	C	-3000	-3	-100	-100	-100	1.02
75	314	20	300	0	0	- 3	-100	-100	-100	.68
75	314	30	-300	-40	-3000	-3	-100	-100	-100	•09
75	314	30	-300	0	-3000	-3	100	-100	-100	•39
75	314	30	-300	20	-3000	-3	100	-100	-100	•13
75	314	40	300	-60	BELOW	-3	-100	-100	-100	•17
75 75	314 314	40 40	300 900	-60 20	-6000 0	-3 -3	100 100	-100 -100	-100 -100	•12 •12
75	325	20	-300	20	0	-3	100	-100	-100	•12
75	325	20	-300	40	0	-3	100	-100	-100	•14
75	325	20	300	0	-3000	-3	-100	-100	-100	.24
75	325	30	300	-80	-6000	- š	-100	-100	-150	16
75	325	30	300	-20	-3000	-3	150	-100	-100	.22
75	325	30	300	0	-3000	-3	-100	-100	-100	.26
75	325	30	300	0	-3000	-3	100	-100	-100	.43
75	325	30	300	0	-3000	-3	150	-100	-100	.83
75	325	30	300	0	0	-3	-100	100	-100	•21
75	325	30	300	0	0	-3	100	-100	-100	•23
75	325	30	300	0	0	-3	100	100	-100	•69
75	325	30	600	0	0	-3	-100	- 100	-100	•12
75	325	40	300	-100	BELOW	-3	-100	-100	-100	•04
75	325	40	300	-80	-6000	-3	-100	-100	-150	•13
75	325	40	300	-80	-6000	-3 -3	-100	-100 -100	-100	•09
75	325	40	300	-60 -60	-6000	-3	-100 -100	150	-100 -150	•09 •39
75 75	325	40	300 600	-80	-3000 -6000	-3	-100	-100	-150	.46
75	325 325	40 40	600	-80	-6000	-3	100	-100	-100	.27
75	325	40	600	-80	-3000	-3	-100	-100	-150	.39
80	314	20	-300	- 50	-3000	-3	100	-100	-100	.12
80	314	20	-300	ŏ	0	-3	100	-100	-100	.13
80	314	20	300	ŏ	ŏ	-3	-100	-100	-100	.49
80	314	30	-300	-60	-6000	3	100	-100	-100	•11
80	314	30	-300	-40	-6000	-3	-100	-100	-100	•16
80	314	30	600	0	0	-3	-100	-100	-100	•12
80	314	40	300	-80	-6000	-3	100	-100	-100	•09
80	314	40	300	-60	BELOW	-3	100	-100	-100	• 35
80	314	40	300	-60	-3000	-3	-100	100	-100	•33
80	314	40	300	-60	-3000	-3	-100	150	-100	•09
80	325	30	-300	-40	-6000	-3 -4	-100	-100 -100	-100	•10
80	325	30	300	-80	-6000 -6000	-6 -3	-100 -100	-100 -100	-100 -100	1.13
80	325	30	300 300	-80 -60	-3000	-3 -3	-100 -100	150	-150	.69
80 80	325 325	30 30	300	-60	-3000	-3	-100	100	-100	.43
80	325 325	40	300	-100	BELOW	-3	-100	-100	-100	.27
80	325	40	300	-80	-6000	-3	-100	-100	-100	.47
80	325	40	300	-80	-3000	-3	-100	-100	-150	•02
80	325	40	300	-60	-6000	- š	-100	-100	-100	.13
80	325	40	300	-60	-3000	-3	-100	150	-200	.17
80	325	40	300	-60	-3000	-3	-100	150	-150	.39

TABLE LXXXIII - Continued

STEADY STATE											
80 325	STE										
80 325 40 600 -80 -3000 -3 -100 -100 -150 1.20 85 314 20 -300 0 0 0 -3 100 -100 -150 .52 85 314 30 300 -40 -3000 -3 100 -100 -100 .52 85 314 40 300 -60 -6000 -3 100 100 -100 .28 85 314 40 300 -60 -6000 -3 -100 100 -100 .87 85 314 40 300 -60 -6000 -3 -100 100 -100 .87 85 314 40 300 -60 -3000 -3 -100 100 -100 .87 85 315 30 300 -60 -3000 -3 -100 100 -100 .87 85 325 30 300 -80 -6000 -3 -100 100 -100 .34 85 325 30 300 -80 -6000 -3 -100 100 -100 .22 85 325 40 300 -80 -6000 -3 -100 100 -100 .34 85 325 40 300 -80 -6000 -3 -100 100 -100 .34 85 325 40 300 -80 -6000 -3 -100 100 -100 .34 85 325 40 300 -80 -6000 -3 -100 100 -100 .34 85 325 40 300 -80 -6000 -3 -100 100 -100 .34 85 325 40 300 -80 -6000 -3 -100 100 -100 .34 85 325 40 300 -80 -6000 -3 -100 100 -100 .34 85 325 40 300 -80 -6000 -3 -100 100 -100 .34 85 325 40 300 -80 -6000 -3 -100 100 -100 .01 85 325 40 300 -60 -3000 -3 -100 100 -100 .01 85 325 40 300 -60 -3000 -3 -100 100 -100 .01 85 325 40 300 -60 -3000 -3 -100 100 -100 .01 85 325 40 300 -60 -3000 -3 -100 100 -100 .01 85 325 40 300 -60 -3000 -3 -100 150 -200 .09 85 325 40 600 -80 -6000 -3 -100 150 -200 .09 85 325 40 600 -80 -6000 -3 -100 150 -150 .88 85 325 40 600 -80 -6000 -3 -100 100 -100 .07 85 325 40 600 -80 -6000 -3 -100 100 -100 .07 85 325 40 600 -80 -6000 -3 -100 100 -100 .07 85 325 40 600 -80 -6000 -3 -100 -100 -100 .07 85 325 40 600 -80 -6000 -3 -100 -100 -100 .07 86 325 40 600 -80 -6000 -3 -100 -100 -100 .07 87 314 30 300 -40 -6000 -3 -100 -100 -100 .07 89 314 30 300 -40 -6000 -3 -100 -100 -100 .15 90 314 30 300 -40 -6000 -3 -100 -100 -100 .35 90 314 40 300 -60 -6000 -3 -100 -100 -100 .35 90 314 40 300 -60 -6000 -3 -100 -100 -100 .77 90 314 40 300 -60 -6000 -3 -100 -100 -100 .77 90 314 40 300 -60 -6000 -3 -100 -100 -100 .77 90 325 40 300 -60 -6000 -3 -100 -100 -100 .77 90 325 40 300 -60 -6000 -3 -100 -100 -100 .77 90 325 40 300 -60 -6000 -3 -100 -100 -100 .77 90 325 40 300 -60 -6000 -3 -100 -100 -100 .77 90 325 40 300 -60 -6000 -3 -100 -100 -100 .77 90 325 40 300 -60 -6000 -3 -100 -100 -100 .07 90 325											
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90											
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90 325 40 300 -60 -3000 -3 -100 150 -150 .53 90 325 40 300 -60 -3000 -3 -100 150 -100 .09 90 325 40 300 -60 0 -3 -100 150 -150 .06 90 325 40 600 -80 -6000 -6 -100 -100 -100 .04 90 325 40 600 -80 -6000 -3 -100 -100 -100 .05 90 325 40 600 -80 -3000 -3 -100 -100 -150 .14 90 325 40 600 -80 -3000 -3 100 100 -150 .17 95 314 30 600 0 0 -3 100 100 -150 .17 95 314 40 -300 -80 -6000 -3 100 -100 -100 .08 95 314 40 -300 -60 -6000 -3 -100 -100 -100 1.27 95 314 40 -300 -60 -6000 -3 150 -100 -100 .58 95 314 40 300 -60 -6000 -3 150 -100 -100 .58 95 314 40 300 -60 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 150 -100 -100 .26									100	-150	
90									150		•53
90 325 40 300 -60 0 -3 -100 150 -150 .06 90 325 40 600 -80 -6000 -6 -100 -100 -100 .04 90 325 40 600 -80 -6000 -3 -100 -100 -100 .05 90 325 40 600 -80 -3000 -3 -100 -100 -150 .14 90 334 40 300 -60 -6000 -3 100 100 -150 .17 95 314 30 600 0 0 -3 100 -100 -100 .08 95 314 40 -300 -80 -6000 -3 -100 -100 -100 1.94 95 314 40 -300 -60 -6000 -3 100 -100 -100 1.27 95 314 40 300 -60 -6000 -3 150 -100 -100 .58 95 314 40 300 -80 -6000 -3 150 -100 -100 .58 95 314 40 300 -60 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 150 -100 -100 .09 95 314 40 300 -60 -6000 -3 100 -100 -100 .26 95 314 40 300 -60 -6000 -3 100 -100 -100 .28									150		
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90 325 40 600 -80 -6000 -3 -100 -100 -100 .05 90 325 40 600 -80 -3000 -3 -100 -100 -150 .14 90 334 40 300 -60 -6000 -3 100 100 -150 .17 95 314 30 600 0 0 -3 100 -100 -100 .08 95 314 40 -300 -80 -6000 -3 -100 -100 -100 1.94 95 314 40 -300 -60 -6000 -3 100 -100 -100 1.27 95 314 40 -300 -60 -6000 -3 150 -100 -100 .58 95 314 40 300 -80 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 100 -100 -100 .99 95 314 40 300 -60 -6000 -3 100 -100 -100 .27	90	325	40	600	-80	-6000	-6	-100		-100	
90 325 40 600 -80 -3000 -3 -100 -100 -150 .14 90 334 40 300 -60 -6000 -3 100 100 -150 .17 95 314 30 600 0 0 -3 100 -100 -100 .08 95 314 40 -300 -80 -6000 -3 -100 -100 -100 1.94 95 314 40 -300 -60 -6000 -3 -100 -100 -100 1.27 95 314 40 300 -80 -6000 -3 150 -100 -100 .58 95 314 40 300 -80 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 -100 100 -100 .09 95 314 40 300 -60 -6000 -3 100 -100 -100 .26 95 314 40 300 -60 -6000 -3 -100 100 -100 .27 95 314 40 300 -60 -6000 -3 -100 100 -100 .28			40	600		-6000	-3	-100		-100	•05
90 334 40 300 -60 -6000 -3 100 100 -150 .17 95 314 30 600 0 0 -3 100 -100 -100 .08 95 314 40 -300 -80 -6000 -3 -100 -100 1.94 95 314 40 -300 -60 -6000 -3 -100 -100 -100 1.27 95 314 40 300 -60 -6000 -3 150 -100 -100 .58 95 314 40 300 -60 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 100 -100 -100 .09 95 314 40 300 -60 -6000 -3 100 -100 -100 .09 95 314 40 300 -60 -6000 -3 100 -100 -100 .218 95 314 40 300 -60 -3000 -3 -100 100 -100 .28	90		40			-3000		-100			
95 314 40 -300 -80 -6000 -3 -100 -100 -100 1.94 95 314 40 -300 -60 -6000 -3 -100 -100 1.27 95 314 40 -300 -60 -6000 -3 100 -100 -100 .58 95 314 40 300 -80 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 -100 100 -100 .09 95 314 40 300 -60 -6000 -3 100 -100 -100 .29 95 314 40 300 -60 -6000 -3 -100 100 -100 .218 95 314 40 300 -60 -3000 -3 -100 100 -100 .28		334	40								
95 314 40 -300 -60 -6000 -3 -100 -100 -100 1.27 95 314 40 -300 -60 -6000 -3 100 -100 -100 .58 95 314 40 300 -80 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 -100 100 -100 .09 95 314 40 300 -60 -6000 -3 100 -100 -100 2.18 95 314 40 300 -60 -3000 -3 -100 100 -100 .28		314	30								
95 314 40 -300 -60 -6000 -3 100 -100 -100 .58 95 314 40 300 -80 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 -100 100 -100 .09 95 314 40 300 -60 -6000 -3 100 -100 -100 2.18 95 314 40 300 -60 -3000 -3 -100 100 -100 .28											
95 314 40 300 -80 -6000 -3 150 -100 -100 .26 95 314 40 300 -60 -6000 -3 -100 100 -100 .09 95 314 40 300 -60 -6000 -3 100 -100 -100 2.18 95 314 40 300 -60 -3000 -3 -100 100 -100 .28		314	40							_	
95 314 40 300 -60 -6000 -3 -100 100 -100 .09 95 314 40 300 -60 -6000 -3 100 -100 -100 2.18 95 314 40 300 -60 -3000 -3 -100 100 -100 .28		314									
95 314 40 300 -60 -6000 -3 100 -100 -100 2.18 95 314 40 300 -60 -3000 -3 -100 100 -100 .28			40								
95 314 40 300 -60 -3000 -3 -100 100 -100 •28											
95 325 40 300 -100 BELOW -3 1CO -100 -100 .09											
	95	325	40	300	-100	BELOW	-3	100	-100	-100	•09

TABLE LXXXIII - Continued

STEA	DY 51	TATE +	ASCENT	•	80	000 LB	(CONT)	NUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
95	325	40	300	-60	-6000	-3	-100	100	-150	•17
95	325	40	300	-60	-6000	-3	100	-100	-150	•60
95	325	40	300	-60	-6000	-3	100	100	-150	•09
95	325	40	300	-60 -60	-3000	-3 -3	-100 -100	100 100	-150 -100	•69
95 95	325 325	40	300 300	-60	-3000 -3000	-3	-100	150	-150	• 27 • 17
100	314	40	-300	-80	-6000	-3	100	-100	-100	.64
100	314	40	-300	-60	-6000	-3	100	-100	-100	1.01
100	314	40	300	-60	-6000	-3	100	-100	-100	2.13
100	325	40	300	-60	-6000	-3	100	-100	-150	1.16
100	325	40	300	-60	-3000	-3	100	100	-100	.17
105	314	40	-300	-60	-6000	-3	100	-100	-100	•42
BLW	314	40	600	-40	-6000	6				•10
40	314	40	600	-60	-6000	3				•07
40	325	40	600	-40	-6000	6 -3				•10
60	314 325	40 40	600 600	-60 -40	-6000 -6000	-3				•18 •10
75	314	40	300	-60	-6000	-3				•46
75	314	40	600	-60	-6000	-3				.18
75	325	40	600	-40	-6000	-3				.10
80	314	30	-300	-60	-6000	-3				.15
80	314	40	600	-60	-6000	-3				•11
80	325	40	600	-40	-6000	-3				• 36
80	325	40	600	-40	-3000	-3			•	• 37
85	314	30	-300	-60	-6000	-3				•29
85 85	314 314	30 40	300 300	-60 -60	-6000 -6000	6 -6				•03 •05
85	314	40	300	-60	-6000	-3				•11
85	314	40	600	-60	-6000	وَ =				•17
85	325	40	600	-40	-3000	-3				.13
85	325	40	600	-40	-3000	-3				•17
90	314	30	-300	-60	-6000	-3				•27
90	314	30	300	-60	-6000	-3				•09
90	314 314	30	300	-60	-6000	6				•03
90 90	314	40	300 600	-60 -60	-6000 -6000	-6 -3				•05
95	314	30	-300	-60	-6000	-3				•11 •15
95	314	30	300	-60	-6000	š				.11
95	314	40	300	-60	-6000	-3				•60
95	314	40	600	-60	-6000	-3				-41
100	314	30	-300	-60	-6000	-3				•12
100	314	30	300	-60	-6000	-3				•25
100 105	314 314	40 30	300 -300	-60	-6000	-3 -3				•15
105	314	30	-300	-60 -60	-6000 -6000	-3 -3				•12 •16
105	314	30	300	-60	-6000	-3				.31
110	314	30	300	-60	-6000	-3				.14
110	314	40	300	-60	-6000	-3				15
115	314	30	-300	-60	-6000	-3				.24
115	314	30	300	-60	-6000	-3				•05
120	314	20	600	-60	-6000	-6				•07
120	314 314	30	-300 600	-60 -60	-6000	-3				• 34
125 BLW	214	30 30	300	-60	-6000 -3000	-6 -3	100	-100	-100	•07 •24
60		30	300	0	-3000	- 3	150	100	-100 -100	.24
70		30	300	ŏ	-3000	-3	100	100	-100	.25
70		30	300	ŏ	-3000	-3	150	100	-100	.08
75		30	300	0	-3000	-6	100	100	-100	•03

TABLE LXXXIII - Continued

STEA	DY STATE	ASCEN	IT •	8	000 LB	(CONT	INUED)		
VEL	RPM TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
75	30	300	0	-3000	-3	100	100	-100	•13
75	30	300	0	-3000	-3	150	100	-100	.08
75	30	300	0	-3000	-3	150	150	-100	.07
75	30	300	0	-3000	-3	100	100	-100	•37
75	30	300	0	-3000	-3	150	100	-100	.17
75	30	300	0	0	-3	150	150	-100	•25
80	30	300	0	-3000	-6	100	100	-100	•03
80	30	300	0	-3000	-3	150	150	-100	.05
80	30	300	0	-3000	-3	150	150	-100	.18
80	30	300	0	0	-3	100	150	-100	•39
80	30	300	0	0	-3	150	150	-100	•25
80	30	-300	20	0	-3	100	100	-150	•12
80	30	300	0	0	-3	100	150	-100	.44
85	30	300	0	-3000	- 3	150	150	-100	•18
85	30	300	0	0	-3	150	150	-100	.47
85	20	-300	20	0	-3	100	150	-100	.65
85	20	-300	20	0	-3	150	150	-100	•63
85	30	-300	0	0	-3	100	100	-100	1.12
85	30	-300	20	0	-3	100	100	-150	.07
85	30	-300	20	0	-3	100	100	-100	1.07
85	30	-300	20	0	-3	100	150	-150	•17
85	30	-300	20	0	-3	150	100	-100	•12
85	30	300	0	0	-3	100	100	-150	.07
90	30	300	0	0	-3	100	150	-100	• 3.2
90 90	30	300	0	0	- 3	150	150	-100	.47
-	30	-300	20	0	- 3	100	100	-150	:70
90	30	-300	20	0	-3	150	100	-100	.37
90 90	30	-300	20	0	-3	150	150	-100	• 32
90 95	30	300	0	0	-3	200	150	-150	• 09
95 95	30	-300	20	0	-3	100	100	-150	• 05
	30	-300	20	0	-3	150	100	-100	1.56
95	30	-300	20	0	- 3	150	150	-150	.43
95	30	-300	20	0	-3	150	150	-100	.27
100	30	-300	20	0	- 3	100	100	-150	•10
100	30	-300	20	0	-3	100	150	-150	. 36

TABLE LXXXIII - Continued

STE	ADY	STATE.	ASCE	NT •	9	000 LB	-			
VEL	RPM	TORG	R/C	OAT	AL T	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	30	-300	0	-3000	-3	100	-100	-100	•03
BLW	314	30	-300	Ō	-3000	3	100	-100	-100	.18
BLW	314	30	-300	20	-3000	3	150	-100	-100	.10
BLW	314	30	300	-20	-3000	3	150	-100	-100	.17
BLW	314	30	300	0	-3000	3	100	-100	-100	.27
BLW	314	30	300	0	-3000	3	150	-100	-100	.17
BLW	314	30	300	Ō	-3000	6	150	-100	-100	-14
BLW	314	30	300	20	0	3	150	-100	-100	•03
BLW	314	40	300	-60	BELOW	3	-100	-100	-100	•12
BLW	314	40	300	-40	-6000	3	150	-100	-100	•10
BLW	325	30	-300	ő	-3000	- 3	100	-100	-100	.25
BLW	325	30	300	-20	-3000	-3	-100	-100	-100	•41
BLW	325	30	600	0	-3000	6	-100	-100	-100	•14
BLW	325	40	600	-80	BELOW	3	-100	-100	-100	.09
BLW	325	50	300	-60	BELOW	3	150	-100	-100	•09
40	314	30	-300	0	-3000	3	100	-100	-100	.18
40	314	30	-300	20	-3000	-3	200	-100	-100	.22
40	314	30	300	Ō	-3000	-3	100	-100	-100	.27
40	314	30	300	Ō	-3000	-3	150	-100	-100	.25
40	314	30	300	0	-3000	3	100	-100	-100	.27
40	314	30	300	20	0	3	200	-100	-100	.10
40	314	40	300	-60	BELOW	-3	-100	-100	-100	.16
40	325	20	-300	0	-3000	-3	-100	-100	-100	.44
40	325	20	-300	0	-3000	-3	100	-100	-100	•22
40	325	20	300	-20	-3000	-3	-100	-100	-100	•07
40	325	30	-300	-100	BELOW	- 3	-100	-100	-100	• 38
40	325	30	-300	-80	BELOW	-3	-100	-100	-100	.34
40	325	30	300	-20	-3000	-3	-100	-100	-100	•22
40	325	30	600	0	-3000	-3	100	-100	-100	.12
40	325	40	300	-60	BELOW	3	150	-100	-100	•15
40	325	40	300	-40	-6000	3	150	-100	-100	.10
40	325	40	600	-80	BELOW	-3	-100	-100	-100	•13
40	325	40	600	-80	BELOW	3	100	-100	-100	•05
60	314	30	-300	-60	-6000	-3	-100	-100	-100	•23
60	314	30	-300	0	-3000	-3	-100	-100	-100	•40
60	314	30	300	0	-3000	-3	150	-100	-100	•25
60	314	30	300	20	0	3	150	-100	-100	•10
60	314	40	300	-60	BELOW	-3	-100	-100	-100	.16
60	325	20	-300	100	~3000	-3	-100	-100	-100	.44
60	325	30	-300	-100	BELOW	-6	-100	-100	-100	•09
60	325	30 30	-300	-80	BELOW	-3	-100	-100	-100	.55
60	325 325	40	300 300	-20 -80	-3000 BELOW	-3	100	-100	-100	.43
60 60	325	40	300	-80 -40	BELOW	-3 3	-100	-100	-100	-16
60	325	40	300	-40	-6000	-3	150	-100	-100	•15
60	325	40	600	-80	BELOW	-3	150 100	-100	-100	•16
60	325	40	600	-40	-3000	-3	100	-100 -100	-100 -100	•07
70	314	20	-300	-20	-3000	-3	150	-100		•30
70	314	20	300	-20	-3000	-3	100	-100	-100	•07
70	314	30	-300	-60	-6000	-3	-100	-100	-100	•37
70	314	30	-300	-20	-3000	-3	150	-100	-100 -100	•26
70	314	30	-300	0	-3000	-3	100	-100	-100	•22
70	314	30	300	ŏ	-3000	-3	-100	100	-100	•41
70	314	30	300	Ö	-3000	-3	100	-100		•28
70	314	30	300	0	-3000	-3	150	-100	-100	•35
70	314	40	300	-60	-6000	-3	-100	-100	-100 -100	•09
70	314	40	300	-40	-6000	-3	150	-100	-100	.39
70	325	30	-300	-100	BELOW	-3	-100	-100	-100	•13
					2220#			100	-100	•26

TABLE LXXXIII - Continued

-										
				-	_	000 10	CONT	TAILIED		
STEA	DY S	TATE.	ASCEN	•	9	000 LB	(C)NI	THOEDI		
VEL	RPM	TORO	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
70	325	30	-300	-80	BELOW	-3	-100	-100	-100	.18
70	325	30	300	-80	BELOW	- 3	-100	-100	-100	.16
70	325	30	600	-20	-3000	-3	100	-100	-100	.17
70	325	40	-300	-80	BELOW	-3	100	-100	-100	.14
70	325	40	300	-40	-6000	-3	150	-100	-100	.45
70	325	40	600	-80	BELOW	-3	100	-100	-100	.34
70	325	40	600	-40	-6000	-3	100	-100	-100	.59
70	325	40	600	-4C	-3000	-3	100	-100	-100	•58
75	314	20	300	0	-3000	-3	100	-100	-100	• 29
75	314	20	300	0	0	-3	100	-100	-100	•08
75	314	30	300	0	-3000	-3	-100	100	-100	•16
75	314	30	300	0	-3000	-3	100	-100	-100	•29
75 75	314 314	40 40	300 300	-60 -40	BELOW -6000	-3 -3	-100 150	-100 -100	-100 -100	•13 •13
75	314	40	600	-60	BELOW	-3	100	-100	-100	• 43
75	325	30	-300	-100	BELOW	-6	-100	-100	-100	.09
75	325	30	-300	-80	BELOW	-3	-100	-100	-100	.04
75	325	30	600	-20	-3000	-3	100	-100	-100	.17
75	325	40	300	-40	BELOW	-3	150	-100	-100	.38
75	325	40	300	-40	-6000	- 3	150	-100	-100	•32
75	325	40	600	-60	BELOW	-3	100	-100	-100	.34
75	325	40	600	-60	-6000	-3	-100	-100	-100	•31
80	314	20	-300	20	0	-3	100	100	-100	•07
80	314	20	300	0	-3000	-3	100	-100	-100	•08
80	314	30	-300	-60	-6000	-3	-100	-100	-100	• 35
80	314	30	-300	0	-3000	-3	100	100	-100	•14
80 80	314 314	30 30	-300 -300	0 20	-3000 0	-3 -3	150 100	100 100	-100 -100	•21 •09
80	314	30	300	-60	-6000	-3	-100	-100	-100	•71
80	314	30	300	-40	-6000	-3	150	-100	-100	.15
80	314	40	300	-60	BELOW	+3	-100	-100	-100	.39
80	314	40	300	-60	-6000	-3	-100	-100	-100	.39
80	314	40	300	-40	-6000	-3	150	-100	-100	.18
80	314	40	600	-60	BELOW	-3	100	100	-100	.17
80	325	40	-300	-80	BELOW	-3	100	-100	-100	• 45
80	325	40	300	-40	-6000	-3	150	-100	-100	.77
80	325	40	600	-60	BELOW	-3	100	100	-100	.16
85	314	30	-300	-60	-6000	-3	-100	-100	-100	4.94
85 85	314 314	30 40	300 300	-40 -60	-6000	-3	150	-100	-100 -100	.34
85	314	40	300	-20	-6000 -3000	-3 -3	-100 100	-100 -100	-100	1.30
85	325	40	600	-60	BELOW	-3	100	100	-100	.26
90	314	30	-300	-60	-6000	-3	-100	-100	-100	.26
90	314	30	-300	-40	-6000	-3	150	-100	-100	2.57
90	314	30	300	-40	-6000	-3	150	-100	-100	•55
90	314	40	-300	-60	BELOW	-3	150	-100	-100	.26
90	314	40	-300	-20	-3000	-3	100	-100	-100	.17
90	314	40	300	-40	-6000	-3	150	-100	-100	•18
90	314	40	300	-40	-3000	-3	100	100	-100	.24
90	314	40	300	-20	-3000	-3	100	100	-100	•34
95	314	30	-300	-60	BELOW	-3	-100	100	-100	•43
95	314	30	-300	-40	-6000	-3	150	-100	-100	•22
95 95	314	30 40	-300 -300	-20	-3000	-3	100	-100	-150	•22
95 95	314 314	40	-300	-60 -60	BELOW	-3 -3	-100 150	100	-100	•16
95	314	40	-300	-40	BELOW BELOW	-3 -3	150	-100 -100	-100 -100	•40 •21
95	314	40	300	-40	-6000	-3	150	-100	-100	.30
,,	247	70	200	70	- 5500			- 100	-100	• 30

TABLE LXXXIII - Continued

STEA	DY S	TATE.	ASCENT	•	9(000	LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/5	ACC	CY-LNG	CY-LAT	COLL	TIME
95	314	40	300	-40	-3000		-3	100	100	-100	.07
100	314	30	300	-40	-3000		-3	-100	100	-100	.09
100	314	40	-300	-60	BELOW		-3	-100	100	-100	1.35
100	314	40	-300	-60	BELOW		-3	150	-100	-100	•52
100	314	40	-300	-40	-6000		-3	150	100	-100	.17
100	314	40	300	-40	-6000		-3	150	-100	-100	.30
100	314	40	300	-40	-3000		-3	100	100	-100	.07
105	314	30	300	-40	-6000		-3	150	-100	-100	.05
105	314	40	-300	-60	BELOW		-3	-100	100	-100	.85
105	314	40	-300	-60	BELOW		-3	200	-100	-100	.09
105	314	40	-300	-40	-6000		-3	200	-100	-150	•03
105	314	40	300	-40	-6000		-3	150	-100	-150	.10
105	314	40	300	-40	-6000		-3	150	-100	-100	•52

TABLE LXXXIII - Continued

STF	ADY	STATE.	LEVEL	FLIG	HT• 6	000 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CV-LNC	CY-LAT	COLL	TIME
BLW	314	20	-300	-60	-6000	-3	-100	-100	-100	1.18
40	314	20	-300	-80	-6000	-3	-100	-100	-100	2.38
40	314	20	-300	-60	-6000	-3	-100	-100	-100	•33
40	314	20	-300	Ō	-3000	-3	-100	-100	-100	.19
40	314	20	-300	ŏ	-3000	-3	100	-100	-100	•50
40	314	30	-300	-60	-6000	-3	-100	-100	-100	.36
40	314	30	-300	-40	-3000	-3	-100	100	-100	.21
60	314	20	-300	-80	-6000	-3	-100	-100	-100	.29
60	314	20	-300	-20	-3000	-6	-100	-100	-100	.06
60	314	20	-300	0	-3000	-3	100	-100	-100	•09
60	314	20	-300	0	-3000	3	100	-100	-100	•07
60	314	30	-300	-40	-3000	-6	-100	100	-100	•07
60	314	30	-300	-40	-3000	-3	-100	100	-100	•12
60	325	30	-300	-60	-6000	-3	-100	-100	-100	.49
70	314	20	-300	-80	-6000	-6	-100	-100	-100	•02
70	314	20	-300	-80	-6000	-3	-100	-100	-100	•15
70	314	20	-300	-20	-3000	-6	-100	-100	-100	•06
70	314	20	-300	-20	-3000	-3	-200	-100	-100	.63
70	314	20	-300	-20	-3000	-3	-100	-100	-100	•02
70	314	20	-300	0	-3000	-3	-100	-100	-100	•09
70	314	20	-300	0	-3000	-3	100	-100	-100	• 05
70	314	30	-300	-80	-6000	-3	-100	-100	-100	•45
70	314	30	-300	-40	-3000	-3	-100	100	-100	.28
75	314	20	-300	-20	-3000	-3	-200	-100	-100	1.09
75 75	314 314	20 20	-300 -300	0	-3000 -3000	-3 -3	-100	-100	-100 -100	•19
75	314	40	-300	-40	-3000	-3	100	-100	-100	•19
80	314	20	-300	-20	-3000	-3	-100 -200	100 -100	-100	9.06
80	314	20	-300	-20	-3000	-3	-100	-100	-100	•04
80	314	20	-300	0	-3000	-3	-100	-100	-100	.09
80	314	30	-300	-80	-6000	-3	-100	-100	-100	.33
80	314	30	-300	Ö	-3000	-3	100	-100	-100	.26
80	314	40	-300	-40	-3000	-3	-100	100	-100	.12
85	314	20	-300	-20	-3000	- 3	-200	-100	-100	.34
85	314	20	-300	-20	-3000	- 3	-100	-100	-100	.04
85	314	20	-300	-20	-3000	-3	100	-100	-100	•09
85	314	20	-300	0	-3000	-6	-100	-100	-100	•06
85	314	20	-300	0	-3000	-3	100	-100	-100	.14
85	314	30	-300	-20	-3000	-3	-100	-100	-100	•09
85	314	30	-300	-20	-3000	-3	100	-100	-100	.26
85	314	30	-300	0	-3000	-3	100	-100	-100	•60
5	314	40	-300	-40	-3000	-3	-100	100	-100	. 37
85	325	20	-300	-20	-3000	-3	-250	-100	-100	.49
90	314	20	-300	-20	-3000	-3	100	-100	-100	•04
90	314	20	-300	0	-3000	-6	-100	-100	-100	•06
90	314	20	-300	0	-3000	-3	100	-100	-100	.14
90	314	30	-300	-20	-3000	-3	-100	-100	-100	•30
90	314	30	-300	-20	-3000	-3	100	-100	-100	1.40
90	314	30	-300	-20	-3000	3	100	-100	-100	•04
90	314	30	-300	-20	2000	-3	-100	-100	-100	•26
90	325	20	-300	-20	-3000	-3	-250	-100	-100	•19
90	325	30	-300	-20	-6000	-3 -4	150	-100	-100	•13
95	314	20	-300 -300	-20 -20	-3000	-6 -3	100	-100	-100	•13
95	314	20	-300	-20 -20	-3000 -3000		-100	-100 -100	-100	•09
95 95	314	20	-300		-3000	-3 -12	100	-100	-100	•52
47	314	30	-300	-20	-3000	-12	-100	-100	-100	•02

TABLE LXXXIII - Continued

STFA	DY S	TATF.	LEVEL	FLIGH	HT • 6	000 LB	(CONT	INUED)		
										71.45
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
95	314	30	-300	-20	-3000	-6	-100	-100	-100	•04
95	314	30	-300	-20	-3000	-3	-100	-100	-100	•04
95 95	314 314	30	-300 -300	-20	-3000	-3	100	-100	-100	• 26
95	314	30 30	-300	-20 -20	-3000	3 -3	100 -100	-100	-100 -100	•04
95	314	30	-300	-20	0 -3000	-3	100	-100 -100	-100	• 25
95	314	40	-300	-20	-3000	- 6	100	-100	-150	•14 •02
95	325	20	-300	-20	-6000	-3	100	-100	-150	•09
95	325	30	-300	-20	-3000	-3	100	-100	-100	•22
95	334	30	-300	-20	-6000	-3	100	-100	-100	.10
100	314	20	-300	-20	-3000	-3	-100	-100	-100	•09
100	314	20	-300	-20	-3000	-3	100	-100	-100	1.38
100	314	30	-300	-20	-3000	-6	-100	-100	-100	.04
100	314	30	-300	-20	-3000	-6	100	-100	-100	.04
100	314	30	-300	-20	-3000	-3	-100	-100	-100	.09
100	314	30	-300	-20	-3000	-3	100	-100	-100	•04
100	314	30	-300	-20	O	-3	-100	-100	-150	.26
100	314	30	-300	-20	Ü	-3	-100	-100	-100	•34
100	314	30	-300	0	-3000	-3	100	-100	-100	• 34
100	314	40	-300	-20	-3000	-3	100	-100	-100	•13
105	314	20	-300	-20	-3000	-6	100	-100	-100	•09
105	314	20	-300	-20	-3000	-3	-100	-100	-100	•36
105	314	20	-300	-20	-3000	-3	100	-100	-100	•78
105	314 314	30 30	-300 -300	-20 -20	-3000 0	-3 -3	-100 -100	-100 -100	-100 -100	•9) •47
105	314	30	-300	-20	-3000	-3	100	-100	-100	•3L
105	325	30	-300	-20	-3000	-3	-100	-100	-100	.41
105	325	30	-300	-20	-3000	-3	100	-100	-100	1.03
110	314	20	-300	-20	-3000	-3	-100	-100	-100	•22
110	314	30	-300	-20	-3000	-3	-100	-100	-150	•69
110	314	30	-300	-20	-3000	-3	-100	-100	-100	6.11
110	314	20	-300	-20	-3000	-3	-100	100	-100	.34
1,10	314	30	-300	-20	-3000	-3	100	-100	-150	.09
110	314	30	-300	-20	-3000	-3	100	-100	-100	• 26
110	314	30	-300	-20	0	-3	-100	-100	-150	.78
110	314	30	-300 -300	-20 -20	0	-3 3	-100	-100 -100	-100 -150	•09 •04
110	314 325	30 30	-300	-20 -20	-3000	-3	-100 -100	-100	-100	.86
110	325	30	-300	-20	-3000	-3	100	-100	-100	1.88
115	314	30	-300	-20	-3000	-3	-100	-100	-150	4.00
115	314	30	-300	-20	-3000	-3	-100	-100	-100	9.56
115	314	30	-300	-20	-3000	-3	-100	100	-150	1.03
115	314	30	-300	-20	-3000	-3	-100	100	-100	.80
115	314	30	-300	-20	-3000	-3	100	-100	-150	1.21
115	314	30	-300	-20	0	-3	-100	-100	-150	•60
115	314	30	-300	-20	0	-3	-100	-100	-100	•09
115	314	30	-300	-20	0	3	-100	-100	-100	•04
115	325	30	-300	-20	-3000	-3	100	-100	- 100	.09
120	314	30	-300	-20	-3000	-3	-100	-100	-100 -150	2.24
120	314	30	-300 -300	-20 -20	-3000 -3000	-3 -3	-100 100	100 -100	-150 -150	.34
120 120	314 314	30 30	-300 -300	-20	-3000	-6	-100	-100	-100	.05
125	314	30	-300	-20	0	-6	-100	100	-100	.05
	2.7	30			•	•				
										1

TABLE LXXXIII - Continued

STE	ADY S	STATE.	LEVEL	FLIGH	IT • 7	000 L	В			
VEL	RPM	TORO	R/C	OAT	ALT	A/S AC	C CY-LNG	CY-LAT	COLL	TIME
BLW	314	20	-300	-60	-6000	•		-100	-100	.68
BLW	314	20	-300	-40	-6000	-:		-100	-100	.49
BLW	314	20	-300	-40	-3000	-:		-100	-100	.46
BLW	314	20	-300	-40	-3000	(-100	-100	•02
BLW	314	20	-300	-20	0	-		-100	-100	•17
BLW	314	20 20	-300 300	0 -80	-4000	-: -:	-100	-100	-100	•03
BLW	314 314	20	300	-60	-6000 -6000	-	100	-100 -100	-100 -100	•04 •11
BLH	314	30	-300	-80	-6000	-	-100	-100	-100	.27
BLW	314	30	-300	-80	-6000	-		-100	-100	.27
BLW	314	30	-300	-60	-6000	-6		-100	-100	.07
BLW	314	30	-300	-60	-6000	- 3	-100	-100	-100	1.92
BLW	314	30	-30C	-60	-6000	3		-100	-100	.13
BLW	314	30	-300	-40	-6000	-		-100	-100	.54
BLW	314	30	-300	-40	-3000	- 3		-100	-100	.19
BLW	314 314	30 30	-300 -300	-40 20	-3000	-3		-100	-100	• 35
BLW	314	30	1200	-40	-3000	3		-100 -100	-100 -100	•12 •02
BLW	314	40	-300	-80	-6000	3		-100	-100	•04
BLW	314	40	-300	-60	-6000	-3		-100	-100	.36
BLW	314	40	300	-60	-6000	-3		-100	-100	.20
40	314	10	-600	-80	-6000	-3	-100	-100	100	.14
40	314	10	-300	-20	0	- 3		-100	-100	•17
40	314	20	-900	0	3000	-3	-100	-100	-100	•07
40	314	20	-600	-60	-6000	-3		-100	-100	•21
40	314 314	20 20	-300 -300	-80 -60	-6000	-3		-100	-100	1.48
40	314	20	-300	-60	-6000 -6000	-6 -3		-100 -100	-100 -100	•16 3•37
40	314	20	-300	-40	-6000	-3		-100	-100	•11
40	314	20	-300	-40	-3000	-3		-100	-100	,18
40	314	20	-300	-20	0	-3		-100	-100	•09
40	314	20	-300	-20	0	-3	-100	-100	100	•07
40	314	30	-300	-60	-6000	- 3	-100	-100	-100	•61
60	314	20	-600	-80	-6000	-3		-100	-100	•12
60	314	20	-300	-80	-6000	-3		-100	-100	•25
60 60	314 314	20 20	-300 -300	-60 -20	-6000 -3000	-3 -3	-100 -100	-100 -100	-100 100	3.22
60	314	30	-300	-80	-6000	-3	-100	-100	-100	•26 •18
60	314	30	-300	-60	-6000	-3		-100	-100	.20
60	314	30	-300	Ö	6000	-3		-100	-100	.05
60	314	30	-300	20	0	3	-100	-100	-100	.12
70	314	20	-600	-80	-6000	-3		-100	-100	.12
70	314	20	-300	-60	-6000	-3		-100	-100	.39
70	314	20	-300	-20	-3000	-3		-100	-100	•22
70 70	314 314	20 20	-300 -300	-20 -20	0	-3 -3		-100 -100	-100 -100	.09
70	314	30	-300	-60	-6000	-3		-100	-100	.18
70	314	30	-300	-00	6000	-3		-100	-100	.46
70	325	20	-300	20	0	-3		-100	-100	.08
70	325	30	-300	-100	BELOW	-3	-100	100	-100	.57
75	314	20	-600	-80	-6000	-3		-100	-100	-10
75	314	20	-600	0	6000	-3		-100	-100	-12
75	314	20	-300	-60	-3000	-3		-100	-100	•11
75	314	20	-300	-20	0	-3		-100	-100	1.37
75 75	314 314	20 20	-300 -300	-20 -20	0	-3 -3		+100 -100	-100 -100	2.26
75	314	30	-900	-60	-3000	-3		100	-150	.07
				- 50	- 3000			100		

TABLE LXXXIII - Continued

										
STE	ADY 5	TATE.	LEVEL	FLIGH	4T• 7	000 LB	(CONT	INUED)		
VEL	RPM	TORO	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
75	314	30	-300	-60	-6000	-3	-100	-100	-100	.16
75	314	30	-300	-60	-3000	-3	-100	-100	-100	.16
75	314	30	-300	-20	0	-3	-100	100	-100	.18
75	314	30	-300	0	6000	-3	-100	-100	-150	.18
75	314	30	-300	0	6000	-3	-100	-100	-100	• 4 Ö
75	325	20	-600	20	0	- 3	-100	-100	100	•06
75	325	20	-300	-20	-3000	-3	-100	100	-100	•10
75	325	20	-300	-20	-3000	3	-100	100	-100	•03
75	325	20	-300	-20	-3000	3	100	100	-100	•03
75 75	325 325	20 20	-300 -300	-20 20	0	-3 -3	-100 -100	100	-100	•24
75	325	30	-300	-80	BELOW	-3	-100	-100 -100	-100 -100	•08 •45
80	314	20	-600	-80	-6000	-3	-100	-100	-100	.10
80	314	20	-300	-20	-3000	-3	-100	100	-100	.41
80	314	20	-300	-20	-3000	- 6	-100	100	-100	•02
80	314	20	-300	-20	3000	6 -3	-200	-100	-100	4.22
80	314	20	-300	-20	ó	-3	-150	-100	-100	11.01
80	314	20	-300	-20	ŏ	-3	-100	100	-100	•33
80	314	20	-300	0	0	-3	-100	100	-100	.88
80	314	30	-300	-60	-6000	-3	-100	-100	-100	1.13
80	314	30	-300	-20	0	~3	-100	100	-100	2.36
80	314	30	-300	0	6000	-3	-100	-100	-150	.44
80	314	30	-300	0	6000	-3	-100	100	-150	.27
80	314	30	-300	20	0	-3	-100	-100	-100	•09
80	314	30	-300	20	0	3	-100	-100	-100	•06
80	325	20	-300	-20	-3000	-6	-100	100	-100	•03
80	325	20	-300	-20	-3000	-3	-100	100	-100	1.00
80	325	20	-300	-20	-3000	-3	100	-100	-100	•21
80	325	20	-300	-20	-3000	3 3	-1.00	100	-100	•16
80	325 325	20 20	-300 -300	-20 -20	-300^	-3	100 -100	100 -100	-100 -100	•06 •09
80 80	325	20	-300	-20		-3	-100	100	-100	.61
80	325	20	-300	-20	-300¢	-3	100	-100	-100	.14
80	325	20	-300	ő	-3000	-3	100	100	-100	.64
80	325	20	-300	20	0	-3	-100	-100	-100	.20
80	325	20	-300	20	ŏ	-3	100	-100	-100	.10
80	325	30	-300	-100	BELOW	-3	-100	-100	-100	.93
80	325	30	-300	-80	BELOW	-3	-100	-100	-100	.59
80	325	30	-300	-20	0	-3	-100	100	-100	.81
80	325	40	-300	-100	BELOW	-3	100	-100	-100	.41
85	314	20	-600	0	6000	-3	-100	-100	-100	-12
85	314	20	-300	-20	-3000	-3	-100	100	-100	-12
85	314	20	-300	-20	-3000	-3	100	100	-100	• 36
85	314	20	-300	-20	0	-3	-200	-100	-100	7.16
85	314	20	-300	-20	0	-3	-150	-100	-100	6.96
85	314	20	-300	-20	0	-3	-100	100	-100	•37
95	314	30	-300	-60	-6000	-3	-100	-100	-100	1.01
85	314	30	-300	-60	-3000	-3	-100	100	-200	•57
85	314	30	-300	-40	-3000 -3000	-3 -3	-100	-100	-100	•95
85 85	314 314	30 30	-300 -300	-40 -20	-3000	-3 -3	-100 -100	100 100	-100 -100	4.42
85	314	30	-300	-20	6000	-3	-100	-100	-100	.13
85	314	30	-300	ŏ	6000	-3	-100	100	-150	.31
85	314	30	-300	20	0	-3	-100	-100	-100	.12
85	325	20	-300	-20	-3000	-6	-100	100	-100	.09
85	325	20	-300	-20	-3000	-6	100	100	-100	.06
85	325	20	-300	-20	-3000	-3	-100	-100	-100	•09
85	325	20	-300	-20	-:000	-3	-100	100	-100	2.04
										

TABLE LXXXIII - Continued

STEA	DY 5	TATE.	LEVEL	FLIGH	4T, 7	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
85	325	20	-300	20	-3000	-3	100	100	-100	.65
85	325	20	-300	-20	-3000	3	-100	100	-100	• 09
85	325	20	-300	-20	-3000	3	100	100	-100	.03
85	325	20	-300	-20	-3000	6	-100	100	-100	•02
85	325	20	-300	-20	0	-3	-100	100	-100	1.92
85	325	20	-300	0	-3000	-3	100	100	-100	.41
85	325	20	-300	0	0	-3	-100	100	-100	.52
85	325	20	-300	20	0	-3	-100	-100	-100	.12
85	325	20	-300	20	0	-3	-100	-100	100	.23
85	325	20	-300	20	0	-3	100	-100	-100	.10
85	325	20	-300	20	0	-3	150	-100	100	.43
85	325	20	300	20	0	-3	-100	-100	-100	.05
85	325	30	-300	-100	BELOW	-3	100	-100	-100	1.12
85	325	30	-300	-80	BELOW	-3	-100	-100	-100	.58
85	325	30	-300	-80	BELOW	-3	100	-100	-100	1.08
85	325	30	-300	-20	-3000	-3	-100	-100	-100	.46
85	325	30	-300	-20	-3000	-3	-100	100	-100	.07
85	325	30	-300	-20	-3000	3	-100	-100	-100	.04
85	325	30	300	20	0	-3	-100	-100	-100	• 37
85	325	40	-300	-100	BELOW	-3	100	-100	-100	2.92
85	325	40	-300	-20	-3000	-3	100	-100	-150	•33
90	314	20	-600	0	6000	-3	-100	-100	-100	.44
90	314	20	-600	0	6000	-3	-100	100	- 100	.18
90	314	20	-300	-20	-3000	-3	-100	100	-100	•48
90	314	20	-300	-20	· - 3000	-3	100	100	-100	•31
90	314	20	-300	-20	0	-3	-200	-100	-100	•95
90	314	20	-300	-20	0	-3	-150	-100	-100	1.07
90	314	20	-300	-20	0	-3	-100	100	-100	•43
90	314	20	-300	-20	3000	-3	-100	-100	-100	•18
90	314	20	-300	0	-3000	-3	100	-100	-100	1.16
90	314	20	-300	0	6000	-3	-100	100	-150	•09
90	314	20	-300	0	6000	-3	-100	100	-100	•31
90	314	20	-300	20	0	-3	-100	-100	-100	•12
90	314	30	-600	-60	-3000	-3	-100	100	-200	•05
90	314	30	-300	-60	-6000	-3	-100	-100	-100	2.61
90	314	30	-300	-60	-6000	-3	-100	100	-150	.14
90	314	30	-300	-60	-3000	-3	-100	-100	-100	.95
90	314	30	-300	-60	-3000	-3	-100	100	-200	1.08
90	314	30	-300	-60	-3000	-3	-100	100	-150	.21
90	314	30	-300	-60	- 3000	-3 -3	-100	100 -100	-200 -100	1.41
90	314	30	-300 -300	-40	-3000	-3 -3	-100 -100	100	-100	.57
90	314	30	-300	-40	-3000 -3000	-3	-100	100	-100	48
90	314	30	-300 -300	-20 -20	0.00	-3	-100	100	-100	2.89
90	314	30	-300	-20	-3000	-3	100	-100	-100	48
90	314	30 30	-300	20	-3000	-3	-100	-100	-100	.12
90	314 314	30	600	-60	-3000	-3	-100	100	-150	.03
90 90	314	30	600	-60	-3000	-3	-100	100	-200	.17
90	314	40	-300	-60	-3000	-3	-100	-100	-200	.09
90	325	20	-300	-20	-3000	-6	-100	-100	-100	•03
90	325	20	-300	-20	-3000	-6	-100	100	-100	.03
90	325	20	-300	-20	-3000	-6	100	100	-100	.19
90	325	20	-300	-20	-3000	-3	-100	-100	-100	.09
90	325	20	-300	-20	-3000	-3	-100	100	-100	.93
90	325	20	-300	-20	-3000	-3	100	-100	-100	•31
90	325	20	-300	-20	-3000	-3	100	100	-100	1.05
90	325	20	-300	-20	0	-3	-100	100	-100	•50
90	325	20	-300	20	ŏ	-3	-100	-100	-100	.23
70	767									

TABLE LXXXIII - Continued (CONTINUED) 7000 LB STEADY STATE, LEVEL FLIGHT. **KPM** TORO TIME VFL R/C OAT AL T A/S ACC CY-LNG CY-LAT COLL 90 325 30 -300 -80 BELOW -3 100 -100 -100 4.98 90 1.73 325 30 -300 -80 -6000 - 3 -100 -100 -100 90 325 -300 -20 -3000 30 -3 -100 -100 -100 .13 90 325 30 -300 -20 -3000 -3 -100 -100 100 1.07 90 325 30 -300 -20 -3000 -3 100 -100 -100 .26 ٩n -300 -3000 325 30 -20 -3 100 100 -100 .22 90 325 30 -300 -20 -3000 3 -100 -100 -100 .03 90 325 30 -300 -20 0 -100 .30 -3 -100 -100 90 -20 325 -300 0 - 3 30 -100100 -100 .82 90 325 40 -300 -100 BELOW -3 100 -100 -100 7.00 90 325 40 -300 -80 BELOW -3 100 -100 -100 2.92 95 314 20 -600 n 6000 -3 -100 -100 -100 .37 95 314 20 -300 -20 -3000 -3 100 100 -100 .45 95 .09 314 20 -300 -20 0 - 3 -100 -100 -100 95 -3 -100 314 20 -300 -20 0 -100 100 .09 95 314 20 -300 0 -3000 - 3 100 -100 -100 7.52 95 -300 314 20 0 -3000 3 100 -100 -100 .07 95 .81 20 -300 0 -100 314 0 -3 100 -100 95 314 20 -300 0 0 -3 150 -100 -100 .13 95 314 20 -300 3000 -3 -100 -100 -100 .14 95 -300 0 6000 -3 314 20 -100 100 -100 1.26 95 314 30 -1500 -60 -3000 -3 -100 150 -150 .03 95 314 30 -600 -60 -3000 -3 -100 100 -150 .05 95 314 30 -300 -80 -6000 -3 -100 -100 -100 .30 95 314 -300 -80 -3000 -3 30 -100 -100 -100 .88 -6000 -3 -100 -100 -150 .40 95 30 -300 -60 314 -6000 - 3 -100 -100 -100 1.67 -300 -60 95 314 30 -200 .03 -3000 -3 -100 -100 95 314 30 -300 -60 -150 -60 -3000 +3 -100 -100 .10 95 314 30 -300 -3000 - 3 -100 -100 -100 .52 95 -300 -60 314 30 6.55 -3000 -200 - 3 -100 100 95 314 30 -300 -60 -150 95 314 30 -300 -60 -3000 -3 -100 100 2.30 100 -100 .37 -60 -3000 -3 -100 95 -300 314 30 100 -200 .09 -3 -100 95 314 30 -300 -60 95 -300 -40 -3000 -3 -100 -100-100 3.23 314 30 -3000 -100 100 -100 1.97 -40 -3 95 -300 114 30 -3000 100 100 -100 .03 -20 -6 95 314 30 -300 100 -100 95 -300 -20 -3000 -3 -100 .26 314 30 -3000 -3 100 100 -100 .12 95 -300 -20 30 314 .90 -3 -100 100 -100 -20 0 95 314 30 -300 .81 -100 100 95 314 30 -300 -20 0 -3 100 3000 -3 -100 -100 -100 .44 95 -300 -20 30 314 -3000 -3 100 -100 -100 2.65 n 95 314 30 -300 -100 .60 100 100 95 314 30 -300 0 -300J -3 95 30 -300 0 -3000 -3 150 -100 -100 .17 314 -100 -100 .08 20 - 3 -100 -300 0 95 314 30 100 -200 .03 -3000 95 40 -1800 -60 -3 -100 314 -6000 -3 -100 -100 -100 .14 95 40 -300 -60 314 -3000 -3 -100 -100 -200 .62 -60 95 314 40 -300 100 -200 2.29 -3000 -3 -100 95 314 40 -300 -60 -150 95 -300 -60 -3000 -3 -100 100 1.72 314 40 .67 -3 -100 -100 -100 95 40 -300 -40 -3000 314 -40 -3000 -3 100 -100 -100 .78 95 314 40 -300 -100 -100.03 95 -300 -20 -3000 -6 -100 325 20 95 325 -300 -20 -3000 -6 100 100 -100 .04 20 -100 -100 .18 -20 -3000 -3 100 95 -300 325 20 .19 100 100 -100 -3000 95 325 20 -300 -20 - 3 325 20 -3 -100 -100 -100 .06 95 20 -300 0 325 -100 -100 2.85 -80 BELOW 100 30 -300 95

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TABLE LXXXIII - Continued 7000 LB (CONTINUED) STATE + LEVEL FLIGHT + STEADY A/S ACC CY-LNG TIME RPM TORQ R/C OAT AL T CY-LAT COLL 95 325 30 -300 BELOW -100 -80 -3 150 -100 .11 95 325 -300 -80 -6000 30 -100 -3 -100 -100 3.05 95 325 -3000 30 -300 -80 -3 -100 -100 -100 .09 95 325 30 -300 -20 -3000 -3 -100 -100 -100 .65 95 325 -300 -20 -3000 30 - 3 -100 .12 100 -100 95 -300 -3000 325 30 -20 -3 100 -100 -100 .28 95 325 30 -300 -20 -3000 100 100 -100 .73 - 3 95 325 -300 .07 30 -20 -3000 -100 3 -100 -100 95 325 -300 .82 30 -20 0 -3 -100 -100 -100 95 325 30 -300 -20 0 -3 -100 100 -100 2.95 95 325 -300 -3000 0 - 3 100 -100 -100 .65 95 325 -300 -100 BELOW 40 100 -3 -100 2.12 -100 95 325 -300 40 -80 BELOW - 3 100 -100 -100 1.18 95 325 40 -300 -80 BELOW -3 150 -100 -100 .90 95 325 40 -300 -80 -6000 -100 -3 100 -100 1.63 95 -20 325 40 -300 -3000 -3 100 -100 -150 .21 95 334 30 -300 -20 0 -3 -100 100 -100 .46 100 314 -300 -3000 4.73 20 0 - 3 100 -100 -100 100 314 -300 -3000 20 0 -3 150 -100 -100 .19 100 314 20 -300 0 0 - 3 100 -100 -100 1.45 100 314 30 -600 -60 -3000 - 3 -100 -100 -150 .41 4.59 100 314 30 -300 -60 -6000 -3 -100 -100 -100 -300 -80 -6000 100 314 30 -3 100 -100 -100 .80 100 314 30 -300 -80 -3000 -3 -100 -100 -100 .09 -6000 100 314 30 -300 -60 -3 -100 -100 -150 .43 1.94 100 314 -300 -60 -6000 -3 -100 -100 -100 30 100 314 30 -300 -60 -6000 -3 -100 100 -100 .09 100 314 30 -300 -60 -3000 -3 -100 -100 -150 .17 100 314 30 -300 -60 -3000 -3 -100 -100 -100 .72 -300 -3000 100 314 30 -60 -3 -100 100 -200 .05 100 314 30 -300 -60 -3000 -3 -100 100 -150 .86 -300 .23 100 314 30 -60 -3000 -3 -100 100 -100 314 -300 -40 -3000 100 30 -3 -100-100-100 2.33 100 314 30 -300 -20 -3000 -3 100 -100 -100 1.13 100 314 -300 -20 0 -3 -100 100 -150 30 .69 314 -300 0 -3 -100 100 -100 .67 100 30 -20 -3000 -100 -300 -3 -100 100 314 30 n 100 8.52 3.44 100 314 30 -300 0 -3000 -3 150 -100 -100 .39 160 314 40 -300 -80 BELOW -3 100 -100 -100 -6000 -150 .14 314 -300 -60 -100 -100 100 40 -3 100 314 40 -300 -60 -6000 -3 100 -100 -100 .89 -300 -3000 -3 -100 -100 -200 .07 100 314 40 -60 1.17 314 -300 -3000 -3 -100 -150 100 40 -60 -100 -300 100 314 40 -60 -3000-3 -100 100 -200 .26 100 314 40 -300 -60 -3000 -3 -100 100 -150 2.49 -300 100 -200 100 314 40 -60 0 -3 -100 .43 -300 -3000 -100 -100 2.18 314 40 -40 -3 -100 100 -3000 100 314 40 -300 -40 -3 100 -100 -100 1.07 •50 100 314 40 -300 -40 0 -3 -100 -100 -100 325 .07 -80 -6000 -3 -100 -100 -100 -600 100 30 •42 100 325 30 -300 -80 BELOW -3 100 -100 -100 100 325 -300 -80 -6000 -3 -100 -100 -100 1.50 30 100 325 -300 -20 -3000 -6 -100 -100 -100 .04 30 -3000 325 -300 -20 -3 -100 -100 -100 1.03 100 30 100 325 30 -300 -20 -3000 -3 100 -100 -100 .19 325 -300 -20 -3 -100 -100 -100 100 30 0 .28 100 325 -20 0 -3 -100 100 -100 4.42 -300 30 -3000 150 105 314 20 -3000 -3 -100 -100 • 32

100

-100

-100

.05

05

314

20

-300

TABLE LXXXIII - Continued

STEA	DY 51	TATE.	LEVEL	FLIGH	IT . 7	000 L	В	(CONT	INUED)		
VEL	RPM	TORQ	R/C	DAT	ALT			CY-LNG	CY-LAT	COLL	TIME
105	314	30	-300	-80	-6000	-	3	-100	-100	-100	• 32
105	314	30	-300	-80	-6000	-		100	-100	-100	.41
105	314	30	-300	-80	-3000	-		-100	-100	-100	•27
105	314	30	-300	-60	-6000	-		-100	-100	-100	1.87
105 105	314 314	30 30	-300 -300	-60 -60	-3000 -3000	-		-100 -100	-100 100	-100 -100	•93 •17
105	314	30	-300	-20	-3000	_		-100	··100	-150	•09
105	314	30	-300	-20	-3000	_		-100	-100	-100	.13
105	314	30	-300	-20	-3000	-		100	-100	-100	.48
105	314	30	-300	-20	0	-		-100	100	-150	2.46
105	314	30	-300	-20	0	-		-100	100	-100	.88
105	314	30	-300	0	-3000	-		100	-100	-100	4.11
105 105	314 314	30 40	-300 -300	0 -80	-3000 BELOW	-: -:		150 150	-100 -100	-100 -100	2.87 .86
105	314	40	-300	-80	-6000	1-		-100	-100	-100	•09
105	314	40	-300	-80	-6000	_	3	100	-100	-100	.41
105	314	40	-300	-80	-3000	-		100	-100	-100	.71
105	314	40	-300	-60	-6000	-		-100	-100	-100	2.26
105	314	40	-300	-60	~6000	-		100	-100	-100	5.35
105	314	40	-300	-40	-3000	•		100	-100	-100	1.43
105	325	30 30	-600 -300	-80 -80	-5000 -5000	-		-100 100	-100 -100	-100 -100	•21 •11
105	325 325	30	-300	-20	-3000			-100	-100	-100	•04
105	325	30	-300	-20	-3000	-		-100	-100	-100	.43
105	325	30	-300	-20	-3000	-		100	100	-100	•22
105	325	30	-300	-20	0	-	3	-100	100	-100	.13
105	325	30	-300	0	-3000	-	3	100	100	-100	•07
105	334	30	-300	-20	0	-		-100	100	-100	• 34
110 110	314 314	30 30	-300 -300	-20 -20	-3000 -3000	- :		100 100	-100 100	-100 -150	•42 •22
110	314	30	-300	-20	-3000	_;		100	100	-100	1.46
110	314	30	-300	-20	0	-	3	-100	100	-150	1.35
110	314	30	-300	-20	0	-		-100	100	-100	.97
110	314	30	-300	0	-3000	-		100	-100	-100	3.21
110	314	30	-300	0	-3000	-		150	-100	-100	1.99
110	314	40	-300 -300	-80 -80	BELOW BELOW	-: -:		150 200	-100 -100	-100 -100	1.90 .77
110 110	314 314	40	-300	-60	-6000	_		-100	-100	-100	.26
iio	314	40	-300	-60	-6000	-		100	-100	-100	3.17
110	314	40	-300	-60	-6000	-	3	150	-100	-100	•09
110	314	40	-300	-60	-3000	-		-100	-100	-100	.44
110	314	40	-300	-60	-3000	-		100	-100	-100	.61
110	325	30	-300	-20	-3000	-		100 -100	-100 100	-100 -100	2.33 .70
110 115	334 314	30 30	-300 -300	-20 -20	-3000	-		100	-100	-100	.86
115	314	30	-300	-20	-3000	-		100	100	-150	-52
115	314	30	-300	-20	-3000	-	3	100	100	-100	1.91
115	314	30	-300	0	-3000	-	3	100	-100	-100	1.06
115	314	30	-300	0	-3000	-	3	150	-100	-100	•73
115	314	40	-300	-80	BELOW	-:	3	150	-100	-100	•24
115	325 314	30	-300 -300	-20 -20	-3000 -3000	-	5	100	100	-100	•17 •18
70 85	314	30 30	-300	-20	-3000	_	3				.18
90	314	30	-300	-40	-6000	-					•07
90	314	30	-300	-40	-6000		3				•04
90	314	30	-300	-20	-3000		3				•06
95	314	30	-300	-80	+3000	-	3				•21
95 05	314	30	-300 -300	-40	-3000	-					1.46
95	314	30	-300	-40	-3000		,				•46

			TAB	LE LX	IIIXX	- Co	nt	inued			
STE	ADY S	TATE.	LEVEL	FLIGH	T • 7	000 1	В	CONT	INUED)		
VEL	RPM	TORG	R/C	OAT	ALT				CY-LAT	COLL	TIME
105	314	30	-300	-40	0		3				•50
105	314	30	-300	-40	0		3				•16 •03
105	314 314	30 30	-300 -300	-20 -20	-3000 -3000		6				•03
105	314	30	-300	-20	-3000		3				1.59
105	314	30	-300	-20	-3000	_	3				.65
105	314	30	-300	-20	-3000		3				•09
105	314	30	-300	-20	-3000	-	3				•31
105	314 314	30 30	-300 -300	-20 -20	-3000 -3000		3				•10 •03
105	314	30	-300	-20	-3000		6				•02
105	314	30	-300	-20	-3000		6				.03
105	314	30	-300	-20	-3000		5				•01
105	314	30	-300	-20	0		.3				1.36
105	314	40	-300	-80 -80	-6000 -3000		.3				•06 •19
105	314 314	40 40	-300 -300	-20	-3000		. 3				1.11
110	304	30	-300	-80	-6000		· 3				•90
110	304	30	-300	-80	-6000	-	- 3				.47
110	304	4.0	-300	-80	-6000		• 3				1.38
110	314	30	-300	-80	-6000		-3				.78 .16
110	314	30	-300 -300	-80 -80	-6000 -6000		·3 ·3				.86
110	314 314	30 30	-300	-80	-6000		-3				2.48
110	314	30	-300	-80	-3000		-3				.12
110	314	30	-300	-80	-3000		- 3				.34
110	314	30	-300	-80	-3000		-3				•80
110	314	30	-300	-80	-3000		-3 -6				•47
110	314 314	30 30	-300 -300	-60 -60	-6000 -6000	•	3				•03
110	314	30	-300	-60	-6000		6				•02
110	314	30	-300	-40	-3000		-6				•05
110	314	30	-300	-40	-3000		-6				•09
110	314	30	-300	-40 -40	-3000 -3000		-6 -3				•05 2•62
110	314 314	30 30	-300 -300	-40	-3000		- 3				•05
110	314	30	-300	-40	-3000		- 3				•54
110	314	30	-300	-40	-3000		- 3				1.06
110	314	30	-300	-40	-3000		- 3				2.51
110	314	30	-300	-40 -40	-3000 -3000		-3 -3				.41 2.52
110	314 314	30 30	-300 -300	-40 -40	-3000		-3				.06
110	314	30	-300	-40	-3000		3				.03
110	314	30	-300	-40	-3000		3				•03
110	314	30	-300	-40	-3000		3				•03 •02
110	314 314	30 30	-300 -300	-40 -40	-3000 0		-3				.16
110	314	30	-300	-40	Ö		-3				.33
110	314	30	-300	-20	-3000		-6				•17
110	314	30	-300	-20	-3000		-6				•04
110	314	30	-300	-20	-3000		-3 -3				•14 •92
110	314 314	30 30	-300 -300	-20 -20	-3000 -3000		-3				1.00
110	314	30	-300	-20	-3000		-3				.16
110	314	30	-300	-20	-3000		- 3				•05
110	314	30	-300	-20	-3000		9				•02
110	314	30	-300	-20	-3000 0		15 -3				•01 •14
110	314 314	30 40	-300 -300	-20 -80	-6000		- 3				.43

			Т	ABLE	LXXXI	II - Co	ntinu	ed		
STEA	DY 5	TATE.	LFVEL	FLIGH	17, 7	000 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
110	314	40	-300	-80	-3000	- 3				•60
110	314	40	-300	-80	-3000	-3				•16
110	314	40	-300	-80	-3000	-3				•10
110	314	40	-300	-40	-3000	-3				1.53
110	314	40	-300	-40	-3000	-3				• 1 1
110	314	40	-300	-40	0	-3				•17
110	314	40	-300	-20	-3000	-3				•11
110	314	40	-300	-20 -80	-3000 -6000	-3 -3				•28 •17
115	304 304	30 30	-300 -300	-80	-6000	-3				1.12
115	304	30	-300	-80	-6000	-3				.88
115	304	40	-300	-80	-6000	-3				•07
115	304	40	-300	-80	-6000	-3				1.57
115	304	40	-300	-80	-6000	-3				.27
115	314	30	-300	-80	-6000	- 3				•95
115	314	30	-300	-80	-6000	-3				.16
115	314	30	-300	-80	-6000	- 3				.34
115	314	30	-300	-80	-3000	-3				•12
115	314	30	-300	-80	-3000	- 3				•15
115	314	30	-300	-80	-3000	-3				•53
115	314	30	-300	-80	-3000	-3				• 33
115	314	30	-300	-60	-6000	-6				•03
115	314	30	-300	-60	-6000	-6				•05
115	314	30	-300	-60	-6000	-3				.16
115	314	30	-300	-40	-3000	-6				•04
115	314	30	-300	-40	-3000	-6				•09 •90
115	314	30	-300	-40	-3000	-3 -3				.47
115	314	30	-300 -300	-40 -40	-3000 -3000	-3				.30
115 115	314 314	30 30	-300	-40	-3000	-3				.05
115	314	30	-300		· -3000	-3				1.31
115	314	30	-300	-40	-3000	-3				•05
115	314	30	-300	-40	-3000	6				.04
115	314	30	-300	-20	-3000	-6				.16
115	314	30	-300	-20	-3000	-3				.21
115	314	30	-300	-20	-3000	-3				•07
115	314	30	-300	-20	-3000	-3				•50
115	314	30	-300	-20	-3000	-3				•22
115	314	30	-300	-20	0	-3				•14
115	314	40	-300	-80	-6000	-3				.19
115	314	40	-300	-80	-6000	-3 -3				1.34 1.83
115	314	40	-300	-80	-6000 -6000	-3 -3				.48
115	314	40 40	-300 -300	-80 -80	-3000	-3 -3				2.04
115 115	314 314	40	-300	-80	-3000	-3				47
115	314	40	-300	-40	-3000	-3				-20
115	314	40	-300	-40	-3000	-3				.47
115	314	40	-300	-20	-3000	-6				•03
115	314	40	-300	-20	-3000	-3				•22
115	314	40	-300	-20	-3000	-3				1.25
115	314	40	-300	-20	-3000	-3				•05
120	304	30	-300	-80	-6000	-3				• 31
120	304	30	-300	-80	-6000	-3				.34
120	314	30	-300	-60	-6000	-6				•05
120	314	30	-300	-40	-3000	-3				•08
120	314	40	-300	-80	-6000	-6				•03 •20
120	314	40	-300	-80	-6000	-3 -3				.05
120	314	40	-300	-80	-6000	-3				.07

TABLE LXXXIII - Continued

1											
STEA	DY 5	TATE.	LFVEL	FLIGH	T. 70	ეიი	1 B	(CONT	INUFD)		
0 1 2.71	, ,					300	8-4 T Z	100.11	1110201		
VEL	RPM	TORO	R/C	OAT	AL T	A / C	400	CV-LNC	CV 147	601.1	
1					ALT	M/3		CY-LNG	CITERI	COLL	TIME
120	314	40	-300	-80	-6000		- 3				.47
120	314	40	-300	-80	-6000		- 3				.48
120	314	40	-300	-80	-3000		-3				1.95
120	314	40	-300	-40	-3000		-3				•09
120	314	40	-300	-20	-3000		-6				•03
120	314	40	-300	-20	-3000		- 3				•53
120	314	40	-300	-20	-3000		-3				•07
125	314	30	-300	-40	-3000		-6				•09
}											
STEA	DY S	TATE.	LEVEL	FL IGH	IT . 8	000	LB				
J 1 L A											
VEL	RPM	TORQ	R/C	OAT	ALT	A/S	ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	10	-300	0	-3000		-3	100	-100	-100	•12
BLW	314	20	-300	20	-3000		-3	100	-100	-100	.76
BLW	314	40	-300	-40	BELOW		- 6	-100	-100	-100	•09
BLW	314	50	300	-60	-6000		-3	-100	-100	-100	.23
BLW	325	30	-300	-80	-6000		-3	-100	-100	-100	.14
40	314	20	-300	20	0		-3	100	-100	-100	.76
40	314	30	-300	-60	BELOW		-3	-100	-100	-100	•36
40	314	30	-300	-60	BELOW		-3	100	-100	-100	.14
40	314	30	-300	-40	-6000		-3	100	-100	-100	•52
40	314	30	-300	-20	-6000		-3	100	-100	-100	.09
40	314	40	-300	-60	BELOW		-3	100	-100	-100	.48
40	314	40	-300	-40	BELOW		-6	100	-100	-100	.05
40	314	40	-300	-40	BELOW		-3	100	-100	-100	.30
40	314	40	-300	-40	BELOW		-3	150	-100	-100	45
40	314	40	- 300	-40	BELOW		3	100	-100	-100	.12
40	314	40	-300	-40	-6000		-3	100	-100	-100	.31
40	314	40	-300	-40	-6000		-3	150	-100	-100	.17
40	325	30	-300	-80	-6000		-3	-100	-100	-100	.04
40	325	30	300	-80	-6000		-3	-100	-100	-100	.50
40	325	40	-300	-40	-6000		-3	100	-100	-100	.24
40	325	40	300	-60	-6000		-6	-100	-100	-100	.04
60	314	20	-300	-40	-6000		-3	100	-100	-100	.09
60	314	20	-300	-40	-3000		-3	-100	-100	-100	.10
60	314	20	-300	ŏ	-3000		-3	100	-100	-100	.20
	314	20	-300	ŏ	0		-3	100	-100	-100	.39
60	314	20	-300	20	ŏ		-3	100	-100	-100	.59
60	314	30	-300	-60	BELOW		-3	100	-100	-100	.52
60	314	30	-300	-40	-6000		-3	100	-100	-100	.74
60	314	30	-300	-40	-6000		-3	150	-100	-100	1.11
60	314	30	300	-40	-6000		-3	150	-100	-100	.16
60	314	40	-300	-60	BELOW		-3	100	-100	-100	.20
60	314	40	-300	-40	BELOW		-3	100	-100	-100	.22
60	314	40	-300	-20	-6000		- 3	100	-100	-100	•09
60	325	20	-300	Õ	0		-3	-100	100	-100	.13
60	325	20	-300	20	-3000		-3	100	-100	100	.21
60	325	20	-300	20	0		-3	-100	-100	-100	.35
60	325	20	-300	20	ŏ		-3	100	-100	-100	.19
60	325	30	-300	-80	BELOW		- 3	-100	-100	-100	.18
60	325	30	-300	,0	0		-3	-100	100	-100	.32
70	314	10	-300	ŏ	ŏ		-3	100	-100	100	.27
70	314	20	-300	ŏ	-3000		-3	-100	-100	-100	•39
70	314	20	-300	ŏ	-3000		-3	100	-100	-100	.98
70	314	20	-300	ŏ	0		-3	100	-100	-100	2.63
							· .				

TABLE LXXXIII - Continued

STE	ADY S	STATE.	LFVEL	FLIG	нт,• 8	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CV-I NG	CY-LAT	COLL	TIME
70	314	20	-300	20	0	-3	100	-100	-100	•71
70	314	30	-900	-40	-6000	-3	100	-100	-100	•03
70	314	30	-300	-40	BELOW	-3	100	-100	-100	•52
70	314	30	-300	-40	-6000	-3	100	-100	-100	•52
70	314	30	-300	-40	-6000	-3	150	-100	-100	•77
70	314	30	-300	-40	-3000	-3	-100	-100	-100	.13
70	314	40	-300	-40	-6000	-3	100	-100	-100	•09
70	325	20	-300	-20	-3000	-3	100	-100	-100	•22
70	325	20	-300	-20	0	-3	-100	100	-100	•22
70	325	20	-300	0	0	-3	-100	100	-100	•42
70 70	325 325	20 20	-300 -300	20 20	-3000 0	-3 -3	100 -100	-100	100	•21
70	325	20	-300	20	0	-3	100	-100 -100	-100 -100	•28 •80
70	325	30	-300	-80	-6000	-3	-100	-100	-150	•18
70	325	30	-300	-80	-6000	-3	-100	-100	-100	•10
70	325	30	-300	-80	-6000	3	-100	-100	-100	.04
75	314	10	-300	0	0	-3	100	-100	100	.07
75	314	20	-300	-40	-6000	-3	100	-100	100	.04
75	314	20	-300	-20	-3000	-3	100	-100	-100	.21
75	314	20	-300	-20	0	-3	-100	100	-100	•68
75	314	20	-300	0	-3000	-3	-100	-100	-100	•93
75	314	20	-300	0	-3000	-3	100	-100	-100	•86
75 75	314	20	-300	0	-3000	-3	100	100	-100	•52
75	314 314	20 20	-300 -300	0	-3000 0	-3 -3	150	-100	-100	1.51
75	314	20	-300	Ö	0	-3	-100 -100	-100 100	-100 -100	1.95
75	314	20	-300	ŏ	ŏ	-3	100	-100	-100	.66 2.80
75	314	20	-300	20	ŏ	-3	100	-100	-100	•51
75	314	30	-300	-60	BELOW	-3	100	-100	-100	.16
75	314	30	-300	-40	-6000	-3	-100	-100	-100	.49
75	314	30	-300	-40	-6000	-3	100	-100	-100	.12
75	314	30	-300	-40	-6000	-3	100	100	-100	.24
75	314	30	-300	-40	-6000	-3	150	-100	-100	.71
75	314	30	-300	0	-3000	-3	150	-100	-100	•29
75 75	314	40	-300	-60	BELOW	-3	100	-100	-100	.44
75	314 325	40 20	-300 -300	-40 -20	-6000 -3000	-3 -3	100	-100	-100	•09
75	325	20	-300	-20	-3000	-3	100 -100	-100 100	-100 -100	•59 •57
75	325	20	-300	-20	-3000	-3	100	-100	-100	•07
75	325	20	-300	ŏ	0	-3	-100	100	-100	•58
75	325	20	-300	ŏ	ŏ	-3	100	-100	-100	.44
75	325	20	-300	20	0	-3	-100	-100	-100	.35
75	325	20	-300	20	0	-3	100	-100	-100	1.09
75	325	30	-300	-80	BELOW	-3	-100	-100	-100	•09
75	325	30	-300	-80	-6000	-3	-100	-100	-100	•73
75	325	30	-300	-80	-6000	3	-100	-100	-100	•10
75 75	325 325	30 30	-300 -300	-80	-3000 -3000	-3	-100	100	-100	•07
75	325	30	-300	-20 -20	-3000	-3 -4	100	-100	-100	•22
75	325	30	-300	-20	0	-6 -3	-100 -100	100 100	-100 -100	•07
75	325	30	-300	0	0	-3	-100	100	-100	•22 •16
80	314	20	-300	-40	-6000	-3	100	-100	-100	•04
80	314	20	-300	-20	-3000	-3	100	-100	-100	5.37
80	314	20	-300	-20	-3000	-3	150	-100	-100	•44
80	314	20	-300	-20	-3000	3	100	-100	-100	.03

TABLE LXXXIII - Continued

STEA	DY ST	TATE .	LEVEL	FLIGH	IT . 80	000 LB	(CONT)	(NUED)		
1 7	J				_					
VEL	RPM	TORO	R/C	OAT	AI T	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
80	314	20	-300	-20	0	-3	-100	100	-100	.22
80	314	20	-300	0	-3000	-3	-100	-100	-100	.30
80	314	20	-300	0	-3000	-3	100	-100	-100	3.70
80	314	20	-300	0	-3000	-3	100	100	-100	1.26
80	314	20	-300	0	-3000	-3	150	-100	-100	3.29
80	314	20	-300	0	0	-3	-100	-100	-100	1.76
80	314	20	-300	0	0	-3	-100	100	-100	2.70
80	314	20	-300	0	0	-3	100	-100	-100	3.54
80	314	20	-300	20	0	-3 -3	-100	-100	-100	.39
80	314	20	-300 -300	20	0004-	-3 -3	100	-100	-100 -100	.27
80	314	30 30	-300 -300	-40 -40	-6000 -6000	-3 -3	100	100 -100	-100 -100	•21 •45
80	314 314	30 30	-300 -300	-40 -20	-6000 0	-3 -3	150 -100	-100 100	-100 -100	•45
80	314	30 30	-300 -300	-20 0	-3000	-3 -3	150	-100 -100	-100	1.20
80	314	40	-300	-60	BELOW	-3	100	100	-100	.86
80	314	40	-300	-60	-3000	3	-100	100	-100	•06
80	325	20	-300	-20	-3000	-3	100	-100	-100	1.22
80	325	20	-300	-20	0	-3	-100	100	-100	1.32
80	325	20	-300	0	-3000	-3	100	-100	-100	1.11
80	325	20	-300	0	0	-3	-100	100	-100	3.33
80	325	20	-300	0	0	-3	100	-100	-100	1.98
80	325	20	-300	20	-3000	-3	100	-100	-100	•59
80	325	20	-300	20	-3000	-3	100	-100	100	•85
80	325	20	-300 -300	20	0	-3	-100	-100 -100	-100 -100	.28
80	325	20	-300	20	-3000	-3 -3	100 -100	-100 -100	-100 -150	•73 •07
80 80	325 325	30 30	-1200 -900	-80 -80	-3000 -6000	-3 -3	-100	-100 -100	-150 -100	.13
80	325	30	-300	-80	BELOW	-3	-100	-100	-100	•66
80	325	30	-300	-80	-6000	-3	-100	-100	-100	1.42
80	325	30	-300	-80	-6000	3	-100	-100	-100	.06
80	325	30	-300	-80	-3000	-3	-100	-100	-100	.39
80	325	30	-300	-60	-3000	-3	-100	150	-150	•21
80	325	30	-300	-20	-3000	-3	100	-100	-100	.22
80	325	30	-300	-20	0	-3	-100	100	-100	,65
80	325	30	-300	0	-3000	-3	100	-100	-100	-19
80	325	30	-300	0	0	-3	-100	100	-100	-87
80	325	40	-300	-80	BELOW	-3	-100	-100	-100	•09
80	325	40	-300	-80	-3000	-3	-100	-100	-100	•19
85 85	314	20	-300 -300	-40 -20	-6000	-3 -3	100	-100	100	.07
85 85	314	20 20	-300 -300	-20 -20	-3000 -3000	-3 -3	100	-100	-100 -100	9.53
85 85	314 314	20 20	-300 -300	-20 -20	-3000 -3000	-3 3	100 100	100 -100	-100 -100	1.66
85 85	314 314	20 20	-300 -300	-20 -20	-3000 0	-3	-100 -100	-100 100	-100 -100	.03
85	314	20	-300	-20 0	-3000	-3 -3	100	-100	-100	16.19
85	314	20	-300	0	-3000	-3	100	100	-100	•50
85	314	20	-300	Ö	-3000	-3	150	-100	-100	8.94
85	314	20	-300	ŏ	0	-3	-100	-100	-100	.66
85	314	20	-300	ŏ	ŏ	-3	-100	100	-100	1.52
85	314	20	-300	0	0	-3	100	-100	-100	.24
85	314	20	-300	20	0	-3	-100	-100	-100	1.46
85	314	20	-300	40	0	-3	100	-100	-100	.89
85	314	30	-600	-40	-3000	-3	-100	-100	-100	•06
85	314	30	-300	-80	-3000	-3	-100	-100	-100	1.73
85	314	30	-300	-60	-3000	-3	-100	-100	-100	1.73
85	314	30	-300	-40	BELOW	-3	150	-100	-100	•24
85	314	30	-300	-40	-6000	-3	-100	-100	-100	•92

TABLE LXXXIII - Continued

	DV 2	7.475			U.F. O	000 + 0	/CONT	TAHLED		
STEA	DY 5	IATE •	LEVEL	FLIG	HI• 8	OOO LB	CONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
85	314	30	-300	-20	0	-3	-100	100	-100	2.52
85	314	30	-300	0	-3000	-3	150	-100	-100	2.33
85 85	314 314	30 30	-300 300	-40	-4000	-3	-100	100	-100	•69
85	314	40	-300	-40 -60	-6000 BELOW	-3 -3	150 100	-100 100	-100 -100	•05 •35
85	325	20	-300	-20	-3000	-3	100	-100	-100	•25
85	325	20	-300	-20	0	~3	-100	100	-100	1.09
85	325	20	-300	0	-3000	-3	100	-100	-100	1.66
85	325	20	-300	0	0	-3	-100	100	-100	1.94
85 85	325 325	20 20	-300 -300	20 20	-3000 0	-3 -3	100 -100	-100 -100	100 -100	1.60
85	325	20	-300	20	Ö	-3	100	-100	-100	3.14
85	325	20	-300	40	ŏ	-3	100	-100	-100	.16
85	325	30	-1500	-80	-3000	-3	-100	-100	-100	•02
85	325	30	-1200	-80	-3000	-3	-100	-100	-100	•07
85	325	30	-900	-80	-6000	-3	-100	-100	-100	•10
85 85	325 325	30 30	-900 -300	-60 -80	-3000 BELOW	-3 -3	-100 -100	-100 -100	-100 -100	•02 1•70
85	325	30	-300	-80	-6000	-6	-100	-100	-100	•04
85	325	30	-300	-80	-6000	-3	-100	-100	-100	3.61
85	325	30	-300	-80	-6000	3	-100	-100	-100	•04
85	325	30	-300	-80	-3000	-3	-100	-100	-100	•22
85 85	325 325	30 30	-300 -300	-60	2000	-3	-100	150	-150	•27
85	325	30	-300	-20 -20	-3000 0	-3 -6	100 -100	-100 100	-100 -100	•19 •07
85	325	30	-300	-20	ŏ	-3	-100	100	-100	71
85	325	30	-300	0	-3000	-3	100	-100	-100	1.52
85	325	30	-300	0	0	-3	-100	100	-100	1.52
85 85	325 325	30	-300 -300	20	-3000	-3	100	-100	-100	•58
85	325	40 40	-300	-100 -80	BELOW	-3 -3	100 100	-100 -100	-100 -100	•27 •09
85	325	40	-300	-80	BELOW	3	-100	-100	-100	.04
85	325	40	-300	-80	-6000	-3	-100	-100	-100	.25
85	325	40	-300	-80	-6000	-3	100	-100	-100	.70
85	325	40	-300	-80	-3000	-3	-100	-100	-100	.19
90 90	314 314	20	-300 -300	-20	-3000	-3	100	-100	-100	7.74
90	314	20 20	-300	-20 -20	-3000 0	-3 -3	100 -100	100 100	-100 -100	4.88
90	314	20	-300	0	-3000	-3	100	-100	-100	10.72
90	314	20	-300	ŏ	-3000	-3	150	-100	-100	5.90
90	314	20	-300	0	0	-3	-100	-100	-100	•25
90	314	20	-300	0	0	-3	-100	100	-100	-31
90 90	31.4 314	20 30	-300 -900	40 -40	-6000	-3 -3	100 -100	-100 -100	-100 -100	3.41
90	314	30	-600	-40	-3000	-3	-100	-100	-100	•03
90	314	30	-300	-80	-6000	-3	-100	-100	-100	1.73
90	314	30	-300	-60	-6000	-3	-100	-100	-100	1.05
90	314	30	-300	-60	-3000	-3	-100	-100	-150	•97
90 90	314	30	-300 -300	-60 -60	-3000	-3	-100	-100	-100	4.28
90	314 314	30 30	-300	-60 -40	-3000 -6000	-3 -3	-100 -100	100 -100	-100 -100	•69 •20
90	314	30	-300	-20	0	-3	-100	100	-100	2.44
90	314	30	-300	0	ŏ	-3	-100	100	-100	.64
90	314	30	300	-40	-6000	-3	-100	-100	-100	.16
90	314	40	-300	-80	-6000	-3	100	-100	-100	•59

TABLE LXXXIII - Continued

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STE	ADY 5	TATE.	LEVEL	FLIG	нт• в	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-L NG	CY-LAT	COLL	TIME
90	314	40	-300	-60	BELOW	-3	100	100	-100	•16
90	314	40	-300	-60	-3000	-3	-100	100	-100	.48
90	314	40	-300	-60	-3000	3	-100	100	-100	.06
90	325	20	-300	0	-3000	-3	100	-100	-100	•19
90	325	20	-300	ő	-3000	-3	-100	100	-100	.18
90	325	20	-300	20	Ö	-3	-100	-100	-100	5.35
90	325	20	-300	20	ŏ	-3	100	-100	-100	6.78
90	325	20	-300	40	ŏ	-3	100	-100	-100	•73
90	325	30	-900	-80	-3000	-3	-100	-100	-100	•09
90	325	30	-900	-60	-3000	-3	-100	-100	-100	.18
47	325	30	-300	-100	BELOW	-3	100	-100	-100	.85
90	325	30	-300	-80	BELOW	-3	-100	-100	-100	, 94
90	325	30	-300	-80	BELOW	-3	100	-100	-100	.45
90	325	30	-300	-80	BELOW	3	100	-100	-100	.04
90	325	30	-300	-80	-6000	-6	-100	-100	-100	•04
90	325	30	-300	-80	-6000	-3	-100	-100	-100	2.30
90	325	30	-300	-80	-6000	-3	100	-100	-100	•09
90	325	30	-300	-80	-6000	3	-100	-100	-100	.08
90	325	30	-300	-80	-6000	3	100	-100	-100	.04
90	325	30	-300	-80	-3000	-3	-100	-100	-150	• 09
90	325	30	-300	-80	-3000	-3	-100	-100	-100	.47
90	325	30	-300	-60	-3000	-3	-100	100	-150	•17
90	325	30	-300	-60	-3000	-3	-100	150	-150	•17
90	325	30	-300	-60	0	-3	-100	150	-150	1.44
90	325	30	-300	-20	-3000	-3	150	-100-	-100	• 33
90	325	30	-300	0	-3000	-3	100	-100	-100	•48
90	325	30	-300	0	-3000	-3	150	-100	-100	. 26
90	325	30	-300	0	0	-3	-100	100	-100	1.02
90	327	30	-300	20	-3000	-3	100	-100	-100	•21
90	325	30	-300	20	0	-3	100	-100	-100	•14
90	325	40	-300	-100	BELOW	-3	100	-100	-100	•93
90	325	40	-300	-80	BELOW	-3	100	-100	-100	3.52
90	325	40	-300	-80	BELOW	-3	150	-100	-100	-16
90	325	40	-300	-80	-6000	-3	-100	-100	-100	-65
90	325	40	-300	-80	-6000	-3	100	-100	-100	3.17
90 90	325 325	40 40	-300 -300	-80 -60	-3000 0	-3 -3	-100 -100	-100 150	-150 -150	.24
95	314	20	-300	-20	-3000	-3	100	-100	-100	1.12
95	314	20	-300	-20	-3000	-3	100	-100	-100	.07
95	314	20	-300	40	0	-3	100	-100	-100	.49
95	314	30	-600	-40	-3000	-5	-100	-100	-100	.09
95	314	30	-300	-80	-6000	-3	-100	-100	-100	.09
95	314	30	-300	-60	-6000	- 3	-100	·100	-100	1.99
95	314	30	-300	-60	-6000	-3	100	-100	-100	.78
95	314	30	-300	-60	-3000	-3	-100	-100	-150	• 26
95	314	30	-300	-60	-3000	-3	-100	-100	-100	10.52
95	314	30	-300	-60	-3000	-3	-100	100	-150	•17
95	314	30	-300	-60	-3000	-3	-100	150	-200	• 34
95	314	30	-300	-60	-3000	-3	-100	150	-150	•40
95	314	30	-300	-40	-6000	-3	-100	-100	-100	2.98
95	314	30	-300	-20	0	-3	-100	100	-100	1.27
95	314	30	-300	20	-3000	-3	100	-100	-100	•42
95	314	30	-300	20	0	-3	100	-100	-100	•49
95	314	30	-300	40	0	-3	100	-100	-100	1.25
95	314	30	300	-60	-3000	-3	-100	-100	-100	•22

TABLE LXXXIII - Continued

STEA	DY S	TATE.	LEVEL	FLIGH	IT • 80	000 LB	(CONT	(NUED)		
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLIL	TIME
95	314	30	300	-40	-6000	-3	-100	-100	-100	.26
95	314	40	-300	-80	-6000	-3	-100	-100	-100	2.18
95	314	40	-300	-80	-6000	-3	100	-100	-100	.78
95	314	40	-300	-80	-3000	-3	-100	-100	-100	• 58
95	314	40	-300	-60	-6000	-3	-100	-100	-100	.75
95 95	314 314	40 40	-300 -300	-60 -60	-6000	-3 -3	-100 100	100 -100	-100 -100	.03 1.51
95	314	40	-300	-60	-6000 -3000	-3	-100	-100	-100	9.63
95	314	40	-300	-60	-3000	-3	-100	100	-150	1.13
95	314	40	-300	-60	-3000	-3	-100	100	-100	5.88
95	325	20	-300	20	0	-3	-100	-100	-100	4.27
95	325	20	-300	20	0	-3	100	-100	-100	1.69
95	325	20	-300	40	0	-3	100	-100	-100	2.11
95	325	30	-900	-60	-3000	-3	-100	-100	-100	• 09
95	325	30	-300	-100	BELOW	-3	100	-100	-100	. 34
95 95	325 325	30 30	-300 -300	-80 -80	BELOW	-3 3	100 100	-100 -100	-100 -100	2.42
95	325	30	-300	-80	BELOW -6000	-3	-100	-100	-100	•04 •72
95	325	30	-300	-80	-6000	-3	100	-100	-100	• 32
95	325	30	-300	-80	-3000	-3	-100	-100	-100	1.24
95	325	30	-300	-60	-3000	-3	-100	100	-150	.88
95	325	30	-300	-60	-3000	-3	-100	150	-150	•12
95	325	30	-300	-60	0	-3	-100	100	-150	1.12
95	325	30	-300	-60	0	-3	-100	150	-150	_* 95
95	325	30	-300	-40	-6000	-3	-100	-100	-100	•24
95 95	325 325	30	-300	-20	-3000	-3	100	-100	-100	•21
95	325 325	30 30	-300 -300	20 20	-3000 0	-3 -3	100	-100	-100	-28
95	325	30	-300	40	Ö	-3	100 100	-100 -100	-100 -100	.49 3.48
95	325	40	-300	-100	BELOW	-3	100	-100	-100	6.13
95	325	40	-300	-80	BELOW	-6	100	-100	-100	•04
95	325	40	-300	-80	BELOW	-3	100	-100	-100	3.77
95	325	40	-300	-80	BELOW	3	100	-100	-100	•04
95	325	40	-300	-80	-6000	-3	100	-100	-100	3.52
95	325	40	-300	-8C	-3000	-3	-100	-100	-150	• 39
95	325	40	-300	-60	-3000	-3	-100	100	-150	•40
95 95	325 325	40 40	-300 -300	-6() -6()	0	-3 -3	-100 -100	100 150	-150	· 45
100	314	30	-300	-80	-3000	-3	-100	-100	-150 -100	2.49 .15
100	314	30	-300	-60	-6000	-3	-100	-100	-100	1.11
100	314	30	-300	-60	-3000	-3	-100	-100	-100	11.34
100	314	30	-300	20	0	-3	100	-100	-100	.46
100	314	30	-300	40	0	-3	100	-100	-100	3.34
100	314	40	-300	-80	-6000	-3	-100	-100	-100	.45
100	314	40	-300		-6000		100			1.27
100	314	40	-300	-80	-6000	-3	150	-100	-100	-83
100 100	314 314	40 40	-300 -300	-80 -60	-3000 -6000	-3 -3	-100 -100	-100 -100	-100	•17 4•42
100	314	40	-300	-60	-6000	-3	100	-100	-100 -100	7.80
100	314	40	-300	-60	-3000	-3	-100	-100	-150	.53
100	314	40	-300	-60	-3000	-3	-100	-100	-100	13.66
100	314	40	-300	-60	-3000	-3	-100	100	-150	2.10
100	314	40	-300	-60	-3000	-3	-100	100	-100	1.19
100	314	40	-300	-60	-3000	-3	100	-100	-100	1.23
100	314	40	-300	-40	-6000	-3	-100	-100	-100	•1.7

TABLE LXXXIII - Continued

STEAL	DY 5	TATE.	LEVEL	FLIGH	T • 8	000 LB	CONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
100	314	40	-300	-40	-6000	6	-100	-100	-100	•03
100	314	40	300	-80	-3000	-3	-100	-100	-100	.09
100	325	20	-300	40	0	-3	100	-100	-100	.16
100	325	30	-300	-80	BELOW	-3	100	-100	-100	•27
100	325	30	-300	-60	0	-3	-100	150	-100	•26
100	325	30	-300 -300	20	-3000	-3	100	-100	-100	1.54
100 100	325 325	30 30	-300 -300	20 20	0	-3 -3	-100 100	-100 -100	-100 -100	•14 3•92
100	325	30	-300	20	ŏ	-3	150	-100	-100	.07
100	325	30	-300	40	ŏ	-3	100	-100	-100	3.21
100	325	40	-300	-100	BELOW	-3	150	-100	-100	.09
100	325	40	-300	-80	BELOW	-6	100	-100	-100	.04
100	325	40	-300	-60	-3000	-3	-100	-100	-150	.24
100	325	40	-300	-60	-3000	-3	-100	100	-150	•52
105	314	30	-300	-60	-6000	-3	-100	-100	-100	•57
105 105	314 314	30 30	-300 -300	20 40	0	-3 -3	100 100	-100 -100	-100 -100	1.40 1.12
105	314	40	-300	-60	-6000	-3	-100	-100	-100	1.47
105	314	40	-300	-60	-6000	-3	100	-100	-100	13.73
105	314	40	-300	-60	-3000	-3	-100	-100	-150	.34
105	314	40	-300	-60	-3000	-3	-100	-100	-100	4.85
105	314	40	-300	-60	-3000	-3	100	-100	-100	1.73
105	314	40	-300	-40	-6000	-3	150	-100	-100	.29
105	314	40	-300	-40	-6000	-3	150	100	-100	.24
105	325	30	-300	20	0	-6	100	-100	-100	•03
105 105	325 325	30 30	-300 -300	20 20	0	-3 -3	-100 100	-100 -100	-100 -100	.28 1.00
105	325	30	-300	40	0	-3	100	-100	-100	•22
110	325	30	-300	20	ŏ	-6	100	-100	-100	•03
110	325	30	-300	20	0	-3	100	-100	-100	.49
90	314	30	-300	-60	-6000	-3				.10
95	314	30	-300	-60	-6000	-3				.41
95	314	30	-300	-60	-6000	-3				•19
95 95	314	30	-300	-40	-3000	-3				.25
95	314 314	30 40	-300 -300	-20 -60	-3000 -6000	-3 -3				• 34
100	314	30	- 300	-60	-6000	-3				•10 •12
100	314	30	-300	-60	-6000	-3				.36
100	314	30	-300	-60	-6000	-3				.40
100	314	30	-300	-60	-6000	6				•02
100	314	30	-300	-40	-6000	-3				•22
100	314	30	-300	-40	-3000	-3				•54
100	314	30	-300	-20	-3000	-3				•90
100 100	314 314	40 40	-300 -300	-40 -40	-3000 -3000	-3 -3				•22
100	314	40	-300	-40	-3000	-3				•14 •06
100	325	30	-300	-40	-3000	-3				•41
105	314	30	-300	-60	-6000	-3				.34
105	314	30	-300	-60	-6000	-3				1.60
105	314	30	-300	-60	-6000	-3				.95
105	314	30	-300	-60	-6000	6				•02
105	314	30	-300	-40	-6000	-3				1.09
105	314	30	-300	-40 -30	-3000	-3				•45
105 105	314 314	30 30	-300 -300	-20 -20	-3000 -3000	-3 -3				•90 •30
105	314	30	-300	-20	-3000	-3				.47
	- •	-			2000	.,				• • •

TABLE LXXXIII - Continued

STEA	DY S	TATE.	LFVFL	FLIGH	T . 80	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
105	314	30	-300	-20	-3000	-3				-59
105	314	40	-300	-60	-6000	- 3				•22
105	314	40	-300	-60	-6000	-3				•17
105 105	314 314	40 40	-300 -300	-60 -40	-6000	6				•03
105	314	40	-300	-40	-6000 -3000	-3 -3				•21 •32
105	314	40	-300	-40	-3000	-3				1.36
105	314	40	-300	-40	-3000	-3				.15
105	314	40	-300	-40	-3000	-3				2.49
105	314	40	-300	-40	-3000	-3				•31
105	314	40	-300	-40	-3000	-3				•41
105 105	314 314	40 40	-300 -300	-20 -20	-3000	-3				•17
105	325	40	-300	-40	-3000 -3000	-3				•03 •50
iio	314	30	-300	-60	-6000	-6				•03
110	314	30	-300	-60	-6000	-3				4.53
110	314	30	-300	-60	-6000	- 3				.81
110	314	30	-300	-60	-6000	-3				• 09
110	314	30	-300	-60	-6000	- 3				1.11
110	314	30	-300	-60	-6000	-3				• 59
110	314	30	-300	-60	-6000	-3				1.53
110	314	30	-300	-40	-6000	-3				1.24
110 110	314 314	30 30	-300 -300	-40 -40	-3000 -3000	-3 -3				1.14
110	314	30	-300	-20	-3000	-3				•22 •81
110	314	30	-300	-20	-3000	-3				.62
110	314	30	-300	-20	-3000	-3				.47
110	314	30	-300	-20	-3000	-3				.10
110	314	40	-300	-60	-6000	-6				•03
110	314	40	-300	-60	-6000	- 3				2.04
110	314	40	-300	-60	-6000	-3				2.83
110	314	40	-300	-60	-6000	6				.03
110 110	314 314	40	-300 -300	-40 -40	-6000	-3 -3				4.84
110	314	40	-300	-40	-6000 -3000	-3				•68 •32
110	314	40	-300	-40	-3000	-3				•65
110	314	40	-300	-40	-3000	- 3				7.50
110	314	40	-300	-40	-3000	-3				3.31
110	314	40	-300	-40	-3000	-3				.67
110	314	40	-300	-40	-3000	-3				1.69
110	314	40	-300	-20	-3000	-3				•29
110	314	40	-300	- 20	-3000	-3				2.34
110 110	314 314	40 40	-300 -300	-20 -20	-3000 -3000	-3 -3				•60 •53
110	314	40	-300	-20	-3000	- 5				•03
115	314	30	-300	-60	-6000	-6				.05
115	314	30	-300	-60	-6000	-3				1.22
115	314	30	-300	-60	-6000	-3				•72
115	314	30	-300	-60	-6000	-3				•31
115	314	30	-300	-60	-6000	-3				• 96
115	314	30	-300	-60	-6000	6				•03
115 115	314	30	-300 -300	-40	-6000	-3 -3				.84
115	314 314	30 30	-300 -300	-40 -20	-3000 -3000	-3				•12 •38
115	314	40	-300	-60	-6000	-6				.03
115	314	40	-300	-60	-6000	-3				8.85

TABLE LXXXIII - Continued

STE	ADY S	STATE.	LEVEL	FLIGH	IT. 8	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-L NG	CY-LAT	COL 1	7145
115	314	40	-300	-60	-6000	-3	CIPLING	CT-LAT	COLL	TIME
115	314	40	-300	-60	-6000	-3				•40 1•47
115	314	40	-300	-40	-6000	-3				2.12
115	314	40	-300	-40	-6000	-3				2.09
115	314	40	-300	-40	-6000	- š				.76
115	314	40	-300	-40	-3000	-6				.03
115	314	40	-300	-40	-3000	- 3				.28
115	314	40	-300	-40	-3000	-3				6.46
115	314	40	-300	-40	-3000	- 3				•24
115	314	40	-300	-40	-3000	-3				2.93
115	314 314	40 40	-300 -300	-40 -40	-3000	-3 3				•21
115	314	40	-300	-20	-3000 -3000	-3				•03
115	314	40	-300	-20	-3000	-3				3.24 .67
120	314	30	-300	-60	-6000	-3				.67
120	314	30	-300	-60	-6000	6				.03
120	314	30	-300	-40	-3000	-3				.12
120	314	40	-300	-60	-6000	-3				.66
120	314	40	-300	-60	-6000	- 3				.47
120	314	40	-300	-40	-3000	-6				•03
120	314	40	-300	-40	-3000	-3				-41
120	314	40	-300	-40	-3000	-3				•05
120	314	40	-300	-40	-3000	3				•03
120 120	314 314	40	- 300	-20 -20	-3000	-3 -3				•96
120	314	40 40	-300 -300	-20 -20	-3000 -3000	-3 -3				.61
125	314	40	-300	-40	-3000	-3				1.09
80		20	-300	0	0	-3	100	100	-100	.05
80		20	-300	20	0	- 3	100	100	-100	.83
80		20	-300	20	0	-3	150	100	-100	1.30
85		20	-300	0	0	-3	100	100	-100	.28
85		20	-300	20	0	-3	100	100	-100	1.34
85		20	-300	20	0	-3	100	150	-100	•12
85 85		20 20	-300 -300	20 20	0	-3 -3	150	100	-100	1.24
85		30	-300	0	0	-3	150 100	150 100	-100 -100	.09 2.18
85		30	-300	ŏ	ŏ	-3	150	100	-100	.21
85		30	-300	20	0	-3	100	150	-150	.17
90		20	-300	0	n	-3	100	100	-100	.41
90		20	-300	0	0	-3	100	150	-100	.72
90		20	-300	20	0	-3	100	100	-150	.88
90		20	-300	20	0	-3	100	100	-100	2.29
90		20	-300	20	0	-3	100	150	-100	1.24
90		20	-300	20	0	-3	150	100	-100	•06
90		20	-300	20	0	-3	150	150	-100	-82
90		30 30	-300	0	0	-3 -3	150	100	-100	•40
90 90		30	-300 -300	20 20	0	-3	100 100	100 150	-100 -150	•52 •17
90		30	-300	20	ő	-3	150	100	-100	.21
95		20	-300	20	ő	-3	100	100	-100	.89
95		20	-300	20	ŏ	-3	150	100	-100	.38
95		30	-300	Ö	Ŏ	-3	100	100	-100	.40
95		30	-300	20	0	-3	100	100	-100	.26
95		30	-300	20	0	-3	100	150	-150	.76
95		30	-300	20	0	-3	150	100	-150	-10

TABLE LXXXIII - Continued

STEA	DY S	STATE.	LEVEL	FLIG	HT. A	000 LB	TACOL	INUED)		
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
95		30	-300	20	0	-3	150	100	-100	.43
95		30	-300	20	ŏ	-3	150	150	-150	1.41
100		30	-300	0	ŏ	-3	100	150	-150	.70
100		30	-300	20	ง	-3	100	100	-150	.15
100		30	-300	20	Ö	-3	100	100	-100	.22
100		30	-300	20	Ö	-3	100	150	-150	3.52
1		30	-300	20	0	-3	100	150	-100	•19
100			-300		0	-3	150	100	-150	15
105		30		0		-3		100	-150	.27
105		30	-300	20	0		100		-150	
105		30	-300	20	0	-3	100	150	-150	•70
	• D.V	CTATE.	LEVEL	EL TG	HT. Q	000 LB				
SIE	AUY	STATE 9	LE VEL	1 [1]	7	000 E()				
VEL	RPM		R/C	OAT	ALT		CY-LNG	CY-LAT	COLL	TIME
40	314	20	-300	-20	-3000	-3	150	-100	-100	.54
40	314	20	-300	0	-3000	-3	100	-100	-100	•07
40	314	20	-300	0	-3000	-3	150	-100	-100	•12
40	314	30	-300	0	-3000	-3	-100	-100	-100	.21
40	314	30	-300	0	-3000	-3	150	-100	-100	•55
40	314	30	-300	0	-3000	-3	200	-100	-100	.19
40	325	20	-600	0	-3000	-3	100	-100	-100	•12
40	325	20	-300	-20	-3000	-3	-100	-100	-100	1.04
60	314	20	-300	-20	-3000	-3	150	-100	-100	.65
60	314	20	-300	ō	-3000	-3	-100	-100	-100	.87
60	314	20	-300	ŏ	-3000	-3	100	-100	-100	.46
60	314	20	-300	ŏ	-3000	-3	150	-100	-100	.38
60	314	30	-300	-60	-6000	-3	-100	-100	-100	.66
60	314	30	-300	-20	-3000	-3	100	-100	-100	.27
60	314	30	-300	0	-3000	-3	150	-100	-100	10
60	325	30	-300	-20	-3000	-3	100	-100	-100	.20
			-300	-20	-3000	-3	100	-100	-100	.37
70	314	20					150	-100	-100	1.30
70	314	20	-300	-20	-3000	-3		-100	-100	.26
70	314	20	-300	0	-3000	-3	-100			
70	314	20	-300	0	-3000	-3	100	-100	-100	-61
70	314	20	-300	0	-3000	-3	150	-100	-100	.19
70	314	30	-300	-60	-6000	-3	-100	-100	-100	•43
70	314	30	-300	-20	-3000	-3	150	-100	-100	.27
70	314	30	-300	0	-3000	-3	150	-100	-100	•90
70	314	30	300	0	-3000	-3	150	-100	-100	•19
70	325	30	-300	-80	BELOW	-3	-100	-100	-100	•16
75	314	20	-600	0	-3000	-3	150	-100	-100	.29
75	314	20	-300	-20	-3000	-3	100	-100	-100	1.08
75	314	20	-300	-20	-3000	-3	150	-100	-100	•60
75	314	20	-300	0	-3000	-3	-100	-100	-100	.42
75	314	20	-300	0	-3000	-3	100	-100	-100	2.03
75	314	20	-300	0	-3000	-3	150	-100	-100	•70
75	314	20	-300	0	0	-3	100	-100	-100	.19
75	314	20	-300	0	0	-3	100	100	-100	•35
75	314	20	300	0	-3000	-3	100	100	-100	.54
75	3 4	30	-300	-60	-6000	-3	-100	-100	-100	.13
75	314	30	-300	-20	-3000	-3	150	-100	-100	.29
75	314	30	-300	0	-3000	-3	150	-100	-100	.40
75	325	30	-300	-80	-6000	-3	-100	-100	-100	.23
80	314	10	-300	ő	0	-3	100	-100	-100	.42
1 30	717			•	•	-				

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TABLE LXXXIII - Continued

STE	ADY S	STATE.	LFVEL	FLIG	нт, ч	9000 LB	(CONT	INUED)	
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CY-LAT		TIME
80	314	20	-300	-20	-3000	-3	100	-100	COLL -100	TIME .27
80	314	20	-300	-20	-3000	-3	-100	-100	-100	.58
80	314	20	-300	ŏ	-3000	-3	-100	100	-100	•35
80	314	20	-300	ŏ	0	-3	100	-100	-100	.27
80	314	20	-300	Ŏ	Ō	-3	100	100	-100	.33
80	314	20	-300	0	0	-3	150	100	-100	.10
80	314	20	-300	20	0	-3	150	100	-100	1.24
80	314	20	300	0	-3000	-3	100	100	-100	.10
80	314	30	-300	0	-3000	-3	150	-100	-100	1.61
80	314	30	-300	0	-3000	-3	150	100	-100	•31
80	325	30	-300	-80	BELOW	-3	100	-100	-100	1.86
80 80	325 325	30 40	-300 -300	-20 -80	-3000 BELOW	-3 -3	100 100	-100 -100	-100	•20
85	314	20	-300	-80	-3000	-3	100	100	-100 -100	•16 •03
85	314	20	-300	ŏ	-3000	-3	150	-100	-100	•12
85	314	20	-300	ŏ	-3000	-3	150	100	-100	.10
85	314	20	-300	ŏ	0	-3	100	-100	-100	2.44
85	314	.30	-300	-60	-6000	-3	-100	-100	-100	.13
85	314	30	-300	-40	-6000	-3	150	-100	-100	•24
85	314	30	-300	0	-3000	-3	150	-100	-100	.47
85	314	30	-300	0	-3000	-3	150	100	-100	•21
85	314	40	-300	-60	-6000	-3	-100	100	-100	.10
85	325	30	-300	-80.	BELOW	-3	100	-100	-100	1.61
85 90	325 314	40 20	-300 -300	-80	BELOW	-3	100	-100	-100	.83
90	314	30	-300	-40	-6000	-3 -3	100 150	-100	-100	.85
90	314	30	-300	-20	-3000	-3	-100	-100 100	-100 -100	.47 .29
90	314	40	-300	-20	-3000	-3	100	-100	-100	.28
95	314	30	-300	-40	-6000	-3	100	-100	-100	.34
95	314	30	-300	-40	-6000	-3	150	-100	-100	1.49
95	314	30	-300	-40	-6000	-3	150	100	-100	• 30
95	314	30	-300	-40	-3000	-3	-100	-100	-100	.86
95	314	30	-300	-40	-3000	-3	-100	100	-100	.48
95	314	30	-300	-40	-3000	-3	100	-100	-100	2.53
95	314	30	-300	-20	-3000	-3	-100	100	-100	•29
95 95	314 314	40 40	-300 -300	-60 -40	-6000 -3000	-3 -3	-100 100	100	-100	•10
95	314	40	-300	-20	-3000	-3	100	-100 -100	-100 -100	•57 1•45
95	325	30	-300	-20	-3000	-3	-100	100	-100	.34
100	314	30	-300	-40	-6000	-3	-100	-100	-100	.07
100	314	30	-300	-40	-6000	-3	100	-100	-100	1.17
100	314	30	-300	-40	-6000	-3	100	100	-100	.69
100	314	30	-300	-40	-6000	-3	150	-100	-100	3.01
100	314	30	-300	-40	-3000	-3	-100	-100	-100	4.22
100	314	30	-300	-40	-3000	-3	-100	100	-150	1.60
100	314	30	-300	-40	-3000	-3	-100	100	-100	18.95
100	314	30	-300	-40 -30	-3000	-3	100	-100	-100	1.52
100 100	314	30 30	-300 -300	-20 -20	-3000 -3000	-3 -3	-100 -100	100	-150	1.05
100	314	30	-300	-20	-3000	-3	100	100 -100	-100 -150	8.35 .16
100	314	30	-300	-20	-3000	-3	100	-100	-100	3.53
100	314	30	-300	-20	-3000	-3	100	100	-100	.52
100	314	40	-300	-60	BELOW	-3	150	-100	-100	.90
100	314	40	-300	-40	BELOW	-3	150	-100	-100	.12
100	314	40	-300	-40	-6000	-3	100	-100	-100	.16

TABLE LXXXIII - Continued

STE	EADY S	TATE:	LEVEL	FLIG	HT• 9	000 LB	TACOL	INUED)		
VE	L RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
100	314	40	-300	-40	-6000	-3	150	-100	-100	1.21
100	314	40	-300	-40	-3000	-3	100	-100	-100	1.60
100		40	-300	-20	-3000	-3	-100	100	-100	.33
100		40	-300	-20	-3000	-3	100	-100	-100	.81
100		40	-300	-20	-3000	-3	100	100	-150	.86
100 105		40	-300	-20	-3000	-3 -3	100 -100	100	-100	•53
105		30 30	-300 -300	-60 -60	BELOW -6000	-3	-100	100 100	-100 -100	•17 •12
105		30	-300	-40	-6000	-3	-100	100	-100	1.02
105		30	-300	-40	-6000	-3	100	-100	-100	1.22
105		30	-300	-40	-6000	-3	100	100	-100	.48
105		30	-300	-40	-3000	- 3	-100	-100	-100	.22
105		30	-300	-40	-3000	-3	-100	100	-150	• 45
105		30	-300	-40	-3000	-3	-100	100	-100	2.12
105		30	-3CO	-40 -30	-3000	-3	100	-100	-100	•92
105 105		30 30	-300 -300	-20 -20	-3000 -3000	-3 -3	-100 100	100 -100	-150 -100	.76
105		40	-300	-80	BELOW	-3	-100	100	-100	.17
105		40	-300	-60	BELOW	-3	-100	-100	-100	.28
105	314	40	-300	-60	BELOW	-3	-100	100	-100	3.61
105		40	-300	-60	BELOW	-3	150	-100	-100	.45
105		40	-300	-60	BELOW	-3	200	-100	-100	•52
105		40	-300	-60	-6000	-3	-100	100	-100	4.01
105 105		40 40	-300 -300	-60 -40	-6000 BELOW	-3 -3	-100 150	150 -100	-100 -100	.36 1.93
105		40	-300	-40	-6000	-3	-100	100	-100	3.56
105		40	-300	-40	-6000	-3	150	-100	-100	4.15
105	314	40	-300	-40	-6000	-3	150	100	-100	1.07
105		40	-300	-40	-3000	-3	100	-100	-100	.28
105		40	-300	-20	-3000	-3	-100	100	-100	.17
105 110		40 30	300 -300	-40 -40	BELOW -6000	-3 -3	200 -100	-100	-100	•10
110		30	-300	-20	-3000	-3	100	150 -100	-100 -100	.69
110		40	-1500	-40	BELOW	-3	150	-100	-100	.03
110		40	-300	-80	BELOW	-3	-100	-100	-100	.78
110		40	-300	-80	BELOW	-3	-100	100	-100	.78
110		40	-300	-80	BELOW	13	100	-100	-100	.60
110		40	-300	-80	BELOW	-3	100	100	-100	•53
110		40 40	-300 -300	-60 -60	BELOW BELOW	-3 -3	-100 100	100 -100	-100 -100	3.63
110		40	-300	-60	BELOW	-3	100	100	-100	1.55
110		40	-300	-60	BELOW	-3	150	-100	-100	.91
110	314	40	-300	-60	BELOW	-3	200	-100	-100	.22
110		40	-300	-60	-6000	-3	-100	-100	-100	•30
110		40	-300	-60	-6000	-3	-100	100	-100	7.76
110 110		40	-300 -300	-60 -40	-6000 BELOW	-3 -3	-100 150	150 -100	-100 -100	1.31
110		40	-300	-40	BELOW	-3	200	-100	-100	2.86
110		40	-300	-40	-6000	-3	-100	100	-150	.34
110	314	40	-300	-40	-6000	-3	-100	100	-100	17.77
110		40	-300	-40	-6000	-3	-100	150	-100	1.53
110		40	-300	-40	-6000	-3	150	-100	-100	6.57
110 110		40	-300 -300	-40 -40	-6000	-3 -3	150 200	100 -100	-100	.47
115		40 30	-300	-40	-6000 -6000	-3	-100	100	-100 -100	2.72
,	4.4	- W	- * *	,,						

TABLE LXXXIII - Continued

STEA	ADY S	TATE.	LEVFL	FLIG	HT• 9	000 LI	B (CONT	INUED		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S AC	C CY-LNG	CY-LAT	COLL	TIME
115	314	40	-300	-80	BELOW	-3		-100	-100	•50
115	314		-300	-60	BELOW	-3		100	-100	•70
		40			BELOW			-100	-100	.95
115	314	40	-300	-60		-3				
115	314	40	-300	-60	BELOW	-3		-100	-100	3.14
115	314	40	-300	-60	-6000	-3		-100	-100	.17
115	314	40	-300	-60	-6000	-3		100	-100	1.25
115	314	40	-300	-40	BELOW	-3		-100	-100	.96
115	314	40	-300	-40	BELOW	-3		-100	-100	2.00
115	314	40	-300	-40	-6000	-3		100	-100	4.07
115	314	40	-300	-40	-6000	-3		150	-100	•60
115	314	40	-300	-40	-6000	-3		-100	-100	2.09
115	314	40	-300	-40	-6000	-3		100	-100	.29
115	314	40	-300	-40	-6000	-3		-100	-100	3.62
120	314	40	-300	-60	BELOW	-3	-100	100	-100	• 26
STE	ADY S	STATE.	DESCEN	IT•	6	000 LF	3			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S AC	C CY-LNG	CY-LAT	COLL	TIME
40	314	10	-1500	-20	-3000	-6	-100	-100	150	.19
40	314	20	-600	-40	-3000	-6	-100	-100	-100	.09
40	314	20	-600	-40	-3000	-3	-100	-100	100	.09
40	314	20	-600	-40	-3000	3	-100	100	-100	.02
40	325	20	-300	-20	-3000	-3	-100	-100	-100	.34
60	314	10	-900	-80	-6000	-3	-100	-100	-100	-20
60	314	10	-300	-20	-3000	-3	-100	-100	-100	.43
60	314	20	-1500	-20	-3000	-3	-100	-100	-100	.02
		20	-1500	-20	-3000	-5		-100	100	.04
60 70	314 314	10	-1500	-20	-3000	-3	-100 -100	-100	150	.15
70	314	10	-1500	-20 -20	-3000	-3		-100	-100	•15
						- 3	-100			
70	314	20	-600 -600	-80 -80	-6000		-100	-100	-100	•13
70	314	20			-6000	-3	-100	100	-100	•08
75	314	10	-1500	-20	-3000	6	-100	-100	100	•04
75	314	10	- 300	-20	-3000	-3	÷100	-100	-100	• 09
75	314	20	-600	-80	-6000	-3	-100	100	-100	•08
75	314	20	-600	-20	-3000	-3	-250	-100	-100	• 29
75	314	20	-300	-20	-3000	-3	-100	-100	-100	•26
75	314	30	-600	-80	-6000	-3	-100	-100	-100	•09
80	314		-1500	-20	-3000	-3	-100	-100	200	.23
80	314	10	-600	-20	-3000	-3	-250	-100	-100	.63
80	314	20	-600	-20	-3000	-3	-250	-100	-100	•32
80	314	20	-300	-20	-3000	-3	-250	-100	-100	•68
80	314	30	-600	-80	-6000	-3	-100	-100	-100	•09
80	325	10	-600	-20	-3000	-3	+250	-100	-100	•56
80	325	20	-300	-20	-3000	-3	-250	-100	-100	•46
85	314	10	-1500	-20	-3000	-3	-100	-100	100	•09
85	314	20	-300	-20	-3000	-3	-100	-100	-100	•14
90	314	20	-1200	~40	-3000	-3	-100	-100	100	-65
95	314	20	-1200	-40	-3000	-3	-100	-100	100	•13
95	314	20	-300	-20	-3000	-3	-100	-100	-100	•14
										j
										1
										1

TABLE LXXXIII - Continued

STE	ADY S	STATE	DESCE	NT •	7	000 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
BLW	314	20	-600	-60	BELOW	-3	-100	-100	-100	.14
BLW	314	20	-300	-80	BELOW	-6	-100	-100	-100	•09
BLW	314	20	-300	-80	BELOW	-3	-100	-100	-100	•17
BLW	314	20	-300	0	0	-3	-100	-100	-100	.16
BLW	314	30	-300 -300	-60 -60	-6000 -6000	-3 -3	-100 100	-100 -100	-100	•05 •25
BLW	314 314	30 30	-300	-60	-6000	-3	100	-100	-100 -100	.09
BLW	325	20	-300	-20	ŏ	-3	-100	100	-100	.09
40	314	10	-900	-80	-6000	-6	-100	-100	100	.11
40	314	10	-900	-80	-6000	-3	-100	-100	150	.05
40	314	10	-600	-20	-3000	-3	-100	-100	100	.09
40	314	10	-300	-80	BELOW	-3	-100	-100	-100	.17
40	314	20	-600	-80	BELOW	-3	-100	-100	-100	.17
40	314	20	-600	-80	BELOW	-3	-100	-100	100	.15
40	314	20	-600	-60	-6000	-3	-100	-100	-100	.72
40	314	20	-600	-20	-3000	3	-100	-100	-100	•04
40	314	20	-300	-80	-6000	-6	-100	-100	100	•07
40	314	20	-300	-80	-6000	-3 -3	-100	-100 -100	-100	•11
40 40	314 325	20 10	-300 -600	-60 0	-6000 -3000	-3	-100 100	-100	-100 100	•18 •12
40	325	10	-600	ŏ	-3000	-3	100	-100	150	.12
40	325	10	-600	20	-3000	-3	-100	-100	150	.11
40	325	io	-300	-20	0	-6	-100	100	-100	.10
40	325	10	-300	-20	Ŏ	-3	-100	-100	-100	.26
40	325	10	-300	-20	0	-3	-100	100	-100	.14
40	325	20	-900	-80	BELOW	-3	-100	-100	-100	.13
40	325	20	-600	-80	BELOW	-3	-100	-100	-100	.14
40	325	20	-300	-20	0	-3	-100	-100	-100	1.12
60	314	10	-600	-60	-6000	-3	-100	-100	150	. 16
60	314	10	-600	-20	-3000	-6	-100	-100	100	•05
60	314	10	-300	-60	-6000	-3	-100	-100	100	•22
60	314 314	20 20	-900 -600	-80 -80	-6000 BELOW	-6 -6	-100 -100	-100 -100	100 100	•07 •06
60 60	314	20	-600	-60	-6000	-3	-100	-100	-100	.29
60	314	20	-600	-20	-3000	3	-100	-100	-100	.04
60	314	20	-300	-60	-6000	-3	-100	-100	-100	.16
60	325	BLW	-900	20	0	-3	-100	-100	250	.08
60	325	10	-1200	-40	-3000	-3	-100	-100	150	•21
60	325	10	-1200	-20	-3000	-6	-100	-100	-100	•12
60	325	10	-600	0	-3000	-3	100	-100	150	.15
60	325	10	-600	20	-3000	-3	-100	-100	200	-19
60	325	10	-300	-20	2000	-3	~100	-100	-100	•26
60	325	10	-300	0	-3000 -3000	-3	100	-100 -100	100 150	•13 •02
60 60	325 325	10 20	-300 -900	-80	BELOW	-3	100 -106	-100	100	.13
60	325	20	-900	-60	BELOW	-6	-100	-100	100	.12
60	325	20	-600	-100	BELOW	-3	-100	-100	-100	.09
60	325	20	-600	-80	BELOW	-3	-100	-100	-100	.27
60	325	20	-600	-60	-6000	-3	-100	-100	-100	•15
60	325	20	-300	-20	0	-3	-100	-100	-100	.48
60	325	20	-300	-20	0	-3	-100	100	-100	•10
70	314	10	-600	-60	-6000	-6	-100	-100	150	•09
70	314	20	-900	-60	-6000	-3	-100	-100	-100	• 05
70	314	20	-600	-80	BELOW	-6	-100	-100	100	•06
70	314	20	-600	-60 -20	-6000	-3 -9	-100	-100 -100	-100 -100	•13 •02
70	314	20	-600	-20	-3000	-7	-100	-100	-100	•02

TABLE LXXXIII - Continued

STE	STEADY STATE DESCENT 7000 LB (CONTINUED)										
VEL	RPM	TORQ	R/C	OAT	AL T	A/S ACC	CV-I NG	CY-LAT	COLL	TIME	
70	314	20	-300	-20	ALT O	-3	-100	100	-100	•12	
70	325	BLW	-900	20	ŏ	-3	-100	-100	250	.08	
70	325	10	-1200	-20	-3000	-6	-100	-100	100	•04	
70	325	10	-600	20	0	-3	-100	-100	200	.19	
70	325	10	-300	0	-3000	-3	100	~100	100	.06	
70	325	20	-600	-80	BELOW	-3	-100	-100	-100	•09	
70	325	20	-60^	-60	-6000	-3	-100	-100	-100	•17	
75 75	314 314	10 20	-3′ -9、	-60	-3000 -6000	-3 -3	150 -100	-100 -100	-100 -100	•0ć •25	
75	314	20	-60¢	-60	-6000	-3	-100	-100	-100	.25	
75	314	20	-600	-60	-6000	-3	-100	-100	100	.09	
75	314	20	-300	-60	-6000	-3	-100	-100	-100	.16	
75	325	10	-1200	-60	-3000	-3	-100	-100	150	.21	
75	325	10	-1200	-20	-3000	-6	-100	-100	100	•04	
75	325	10	-900	20	0	-3	-100	-100	150	•40	
75	325	10	-900	20	0	-3	-100	-100	250	•08	
75	325	10	-600	0	-3000	-3	150	-100	100	•24	
75	325	1,0	-600	20	0	-3	-100	-100	200	.28	
75 75	325 325	10 10	-300 -300	0	-3000 -3000	-3 6	100 100	-100 -100	100 150	•13 •02	
75	325	20	-900	-80	BELOW	-3	-100	-100	100	.18	
75	325	20	-600	-100	BELOW	-3	-100	-100	-100	.04	
75	325	20	-600	-20	0	-3	-250	-100	-100	.39	
80	314	10	-300	0	-3000	-3	150	-100	100	.09	
80	314	20	-900	-60	BELOW	-6	-100	-100	100	.12	
80	314	20	-900	-60	-6000	-3	-100	-100	-100	•10	
80	314	20	-600	-80	BELOW	-3	-100	-100	100	•08	
80	314	20	-600	-60	-6000	-3	-100	-100	-100	•27	
80	314	20	-300 -300	-60	-6000	-3 -3	-100	-100	-100 -100	1.17	
80 80	314 325	20 10	-1200	-20 -60	-3000	-3	-200 -100	-100 -100	150	.04	
80	325	10	-1200	-20	-3000	-3	100	-100	150	.09	
80	325	10	-900	-20	Ö	-3	-100	100	-100	.05	
80	325	10	-300	0	-3000	-6	100	-100	150	.05	
80	325	20	-1200	-20	-3000	-3	-100	-100	100	•10	
80	325	20	-900	-20	0	-3	-100	100	-100	•17	
80	325	20	-600	-100	BELOW	-3	-100	-100	-100	•10	
80	325	20	-600	-60	-6000	-3	-100	-100	-100	•13	
80	325 325	20	-600 -300	-20 -20	-3000	-3 -3	-250 -100	-100 100	-100 -100	.53	
80 85	314	20 10	-1500	0	3000	-3	-100	-100	-100	.12	
85	314	10	-300	ŏ	-3000	-3	150	-100	100	.09	
85	314	20	-900	-80	BELOW	-3	-100	-100	-100	.09	
85	314	20	-900	-60	BELOW	-6	-100	-100	100	•04	
85	314	20	-900	-60	-6000	-3	-100	-100	-100	.10	
85	314	20	-900	0	3000	-3	-100	-100	-100	•31	
85	314	20	-600	-80	BELOW	-3	+100	-100	100	-08	
95	314	20	-300 -300	-60 -20	-6000	-3 -3	-100	-100 100	-100	•09	
85 85	314 314	20 20	-300	-20	-3000 0	-3 -3	100 -100	100	-100 -100	.07	
85	325	10	-900	-20	0	-3	-100	100	-100	.14	
85	325	10	-600	0	-3000	-3	150	-100	100	.34	
85	325	20	-1200	-60	-3000	-3	-100	-100	150	.04	
85	325	20	-900	-80	BELOW	-3	-100	-100	100	.18	
85	325	20	-900	-20	-3000	-3	100	-100	-100	•09	
85	325	20	-900	-20	0	-3	-100	100	-100	.17	

TABLE LXXXIII - Continued

								-	-	
STE	ADY	STATE.	DESC	ENT.		7000 LB	(CON	TINUED	1	
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
85	325	20	-300	-20	-3000	3	100	100	-100	.03
85	325	20	-300	-20	0	-3	-100	100	-100	•40
85	325	30	-600	-80	BELOW	-3	-100	-100	-100	•27
85 90	325 314	30 10	-600 -1500	-60 -20	-6000 3000	-3 -3	-100 +100	-100 -100	-150 -100	•15 •12
90	314	20	-1500	-40	-3000	-3	-100	-100	-100	.09
90	314	20	-1500	-20	- 5000	-3	-100	-100	-100	.13
90	314	20	-1200	-60	-3000	-6	-100	-100	150	.07
90	314	20	-900	-80	BELOW	-3	-100	-100	-100	.09
90	314	20	-900	-60	BELOW	-6	-100	-100	150	•04
90	314	20	-900	0	3000	-3	-100	-100	-100	•65
90	314	20	-600	-80	BELOW	-3	-100	-100	100	•12
90	314 314	20 20	-600 -600	-60 -20	-6000 -3000	-3 -3	-100 100	-100 -100	-100 -100	•18 •10
90	314	20	-300	-20	-3000	-3	100	100	-100	.36
90	314	20	-300	0	-3000	-3	100	-100	-100	.27
90	314	30	-900	-80	BELOW	-3	100	-100	-100	.26
90	314	30	-600	-60	-3000	-3	-100	-100	-150	.17
90	314	30	-600	-60	-3000	-3	-100	-100	-100	.27
90	314	30	-600	-60	-3000	-3	-100	100	-150	•17
90	314	30	-300	-60	-6000	-3	-100	-100	-100	•09
90	325	10	-900	-20	0	-3	-100	100	-100	-05
90 90	325 325	20 20	-900 -900	-80 -80	BELOW -6000	-3 -3	100 -100	-100 -100	100 -100	.13
90	325	20	-900	-20	-3000	-3	-100	-100	-100	.09
90	325	20	-600	- 20	-3000	-3	150	-100	-100	.15
90	325	20	-300	-20	-3000	-3	100	100	-100	.94
90	325	20	-300	-20	-3000	3	100	100	-100	.10
90	325	20	-300	-20	0	-3	-100	100	-100	.23
90	325	30	-600	-100	BELOW	-3	100	-100	-100	•70
95	314	10	-1500	-20	0	-3	-100	-100	-100	-18
95 95	314 314	20 20	-2100 -1500	-60 -40	-6000 -3000	-3 -3	-100 -100	-100 -100	150 100	•05
95	314	20	-1500	-20	-3000	-3	-100	-100	100	.13
95	314	20	-900	-80	BELOW	-3	-100	-100	-100	.09
95	314	20	-900	O	3000	-3	-100	-100	-100	.09
95	314	20	-600	-80	BELOW	-3	-100	-100	100	•12
95	314	20	-600	-60	-6000	-3	-100	100	-100	•18
95	314	20	-300	-20	-3000	-3	100	100	-100	•33
95	314	20	-300	- 0	DEI OH	-3	100	-100	-100	•27 •07
95 95	314 314	30 30	-900 -900	-80 -40	BELOW -3000	-3 -3	100 -100	-100 -100	-100 -100	.43
95	314	30	-600	-80	BELOW	-3	100	-100	-100	24
95	314	30	-600	-60	-6000	-3	-100	100	-150	.02
95	314	30	-600	-60	-3000	-3	-100	-100	-150	1.32
95	314	30	-600	-60	-3000	-3	-100	100	-150	•26
95	314	30	-300	- 70	-3000	-3	100	100	-100	•41
95	325	20	-900	-60	BELOW	-3	150	-100	100	•20
95	325	20 20	-900 -900	-80 -20	-6000 -3000	-3 -3	-100 -100	-100 -100	-100 -100	•41
95 95	325 325	20	-600	-20	-3000	-3	150	-100	-100	.13
95	325	20	-300	-20	-3000	-3	100	100	-100	.08
95	325	30	-900	-80	-6000	-3	-100	-100	-100	1.31
95	325	30	-900	-80	-6000	-3	100	-100	-100	.78
95	325	30	-600	-80	-6000	-3	-100	-100	-100	•29
95	325	30	-300	-20	-3000	-3	100	-100	-100	-14

TABLE LXXXIII - Continued

STEA	DY 5	TATE,	DESCE	NT•	7	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
95	325	30	-300	-20	-3000	-3	100	100	-100	.19
95	325	40	-600	-100	BELOW	-3	100	-100	-100	.09
100	314	20	-2100	-60	-6000	-3	-100	-100	150	•11
100	314	20	-1800	-60	-3000	-3	-100	100	-100	.19
100	314	20	-1500	-40	-3000	-3	-100	-100	100	.24
100	314	20	-1500	-40	0	-3	-100 -100	-100 -100	100 -100	.18 .18
100	314	20	-900	0	3000 -3000	-3 -3	150	-100	-100	1.20
100	314 314	20 20	-600 -600	0	-3000	-3	100	-100	-100	.42
100	314	30	-1200	-60	-3000	-3	-100	-100	-150	.09
100	314	30	-1200	-60	-3000	-3	-100	-100	-100	.10
100	314	30	-900	-80	BELOW	-3	100	-100	-100	•07
100	314	30	-900	-40	-3000	-3	-100	-100	-100	.95
100	314	30	-900	-40	-3000	-3	-100	-100	100	.28
100	314	30	-900	-40	0	-3	-100	-100	-100	.10
100	314	30	-600	-60	-3000	-3 -3	-100 -100	-100 -100	-150 -100	.30 .19
100	314	30	-600 -600	-60 -20	-3000 -3000	-3	100	-100	-100	.23
100	325 325	20 20	-600	-20	-3000	-3	150	-100	-100	.13
100	325	30	-900	-80	-6000	-3	-100	-100	-100	.53
100	325	30	-900	-80	-6000	-3	100	-100	-100	.18
105	314	20	-1800	-60	-6000	-3	-100	-100	-100	.05
105	314	20	-1500	-40	0	-3	-100	-100	100	• 09
105	314	20	-600	0	-3000	-3	100	-100	-100	.33
105	314	20	-600	0	0	-3	150	-100	-100	.73
105	314	30	-1200	-60	-6000	-3	100	-100	100 -100	•21 •35
105	314	30	-900 -600	-40 -60	-3000	-3 -3	-100 -100	-100 -100	-100	•13
105 105	314 325	30 20	-600	-20	-3000	-3	100	-100	-100	.30
110	314	30	-1200	-60	-6000	-3	100	-100	100	.05
110	314	30	-600	-20	-3000	-3	-100	-100	-100	.17
110	314	30	-600	-20	-3000	-3	-100	100	-100	.69
110	314	30	-600	-20	0	-3	-100	100	-150	•31
110	314	30	-300	-60	-6000	-3	100	-100	-100	•14
110	314	40	-300	-60	-6000	-3	100	-100	-100 -100	•14
110	314	40	-300	-60 -20	-6000	-3 -3	150 100	-100 -100	-100	.31
110 115	325 314	30 20	-600 -600	-20	-3000 -3000	-3	-100	-100	-100	.69
115	314	20	-600	-20	-3000	-3	100	-100	-100	.83
115	314	30	-600	-20	-3000	-3	-100	-100	-100	.83
115	314	30	-600	-20	0	-3	-100	100	-150	•09
115	314	30	-600	,0	0	3	-100	100	-100	•60
120	314	20	-600	- 40	0	-3	-100	100	-100	•17
120	314	30	-600	-20	-3000	-3	-100	-100	-100	•22
120	314	30	-600	-20	-3000	-3	-100	100	-100	.43
120	314	30	-600	-20	0	-3	-100	100	-100	•52
60	314	10	-900	-80 -80	BELOW BELOW	-6 -3				.19
75	314 314	10 20	-900 -900	-80	BELOW	-3				.19
85 90	314	30	-300	-40	-6000	3				•04
95	314	30	-300	-40	-6000	-3				.16
95	314	30	-300	-40	-6000	3				•06
100	314	30	-300	-60	-3000	-3				• 05
100	314	30	-300	-40	-6000	-9				•03
100	314	30	-300	-40	-6000	-3				• 33
100	314	30	-300	-40	-6000	3				•04 •09
105	314	20	-1500	-40	-3000	-3				• 09

TABLE LXXXIII - Continued 7000 LB (CONTINUED) STEADY STATE . DESCENT. VEL **RPM** TORQ R/C DAT ALT A/S ACC CY-LNG CY-LAT COLL TIME .26 105 314 30 -900 -60 -3000 -3 105 314 30 -600 -80 -6000 -3 .16 105 314 30 -300 -80 -6000 3 .03 105 314 30 -300 -80 -6000 9 .02 105 30 -80 -3000 314 -300 -3 .12 105 314 30 -300 -60 -3000 -3 .31 105 -6000 314 30 -300 -40 -6 .07 105 -300 -40 -3 30 -6000 314 .09 105 314 30 -300 -40 -6000 -3 .09 105 314 30 -300 -40 -3000 .04 105 314 30 -300 -40 -3 .13 -3000 110 314 30 -1500 -40 -3 .09 110 -60 -3000 314 30 -900 -3 .20 110 314 30 -600 -80 -6000 -3 .14 110 314 30 -600 -80 -6000 -3 .16 110 30 -300 -80 -6000 314 -3 .90 110 314 30 -300 -80 -6000 -3 .63 110 314 30 -300 -80 -6000 -3 .07 110 30 -80 -6000 314 -300 3 .03 .02 110 314 30 -300 -80 -6000 9 110 314 30 -300 -80 -3000 -3 .63 110 30 314 -300 -80 -3000 -3 1.09 110 314 30 -300 -80 -3000 -3 .34 110 30 -300 -3000 314 -60 -3 .69 110 30 -300 -60 -3000 314 -3 .19 110 314 30 -300 -60 -3000 -3 .26 110 314 30 -300 -40 -3000 -9 .03 110 -3000 -300 -40 30 -3 314 .31 110 314 30 -300 -40 -3000 3 .04 110 314 30 -300 -40 -3000 3 .06 110 314 30 -300 -40 0 -3 •13 110 314 30 -300 -20 0 -3 .79 110 314 30 -300 -20 -3 .50 115 -3000 314 20 -900 -80 -3 .14 115 -900 314 20 -80 -3000 3 .03 115 314 30 -900 -60 -3000 -3 .20 115 314 30 -600 -80 -6000 -3 .14 115 -600 -80 314 30 -6000 -3 .57 -80 115 314 30 -300 -6000 -6 .03 115 314 30 -300 -80 -6000 -6 .06 115 314 30 -300 -80 -6000 -3 .44 115 314 30 -300 -80 -6000 -3 .92 115 314 30 -300 -80 -6000 -3 .12 115 314 30 -300 -80 -3000 -3 • 37 115 314 30 -300 - 80 -3000 -3 1.05 115 314 30 -300 -60 -3000 .09 -3 115 314 30 -300 -40 -3000 -6 .07 115 314 30 -300 -40 -3000 -3 .08 115 314 30 -300 -40 0 -3 .40 115 314 -300 -20 30 0 -3 .48 115 -6000 314 40 -300 -80 -3 .47 115 314 40 -300 -80 -6000 .32 120 20 -900 -80 -3000 314 -3 .10 120 314 30 -300 -80 -6000 -6 .03 120 314 30 -300 -80 -6000 -3 .34 120 314 30 -300 -80 -6000 -3

-3

-3000

-80

120

314

30

-300

•06

TABLE LXXXIII - Continued

			05555	NT	-	000 10	/ CONT	T T NI IED I		
STEA	DY S	TATE	DESCE	NI •	7	OUU LB	CCON	(INUED)		
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
120	314	30	-300	-40	-3000	-3				.08
120	314	30	-300	-20	0	-3				•50
120	314	40	300	-80	-6000	-6				• 05
120	314	40	-300	-80	-6000	-3				.40
125	314	30	-300	-80	-6000	-6				•03
125	314	40	-300	-80	-6000	-3				.18
STE	ADY S	STATE	• DESCE	NT•	8	000 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	TIME
BLW	314	30	-300	-60	-6000	-3	-100	-100	-100	.33
BLW	325	20	-300	20	-3000	-6	-100	-100	150	•01
40	314	10	-600	0	-3000	-3	100	-100	100	•22
40	314	10	-600	0	0	-3	100	-100	-100 100	-14
40 40	314 314	10 10	-600 -300	20 0	-3000	-3 -6	-100 -100	-100 -100	150	•15 •07
40	314	10	- 300	0	-3000	-3	100	-100	100	-15
40	314	20	-300	-60	BELOW	-6	-100	-100	100	.12
40	314	20	-300	-60	BELOW	-3	-100	-100	100	.45
40	314	30	-300	-60	BELOW	-6	-160	-100	-100	.07
40	325	10	-1200	-80	-6000	-6	-100	-100	100	.05
40	325	10	-1200	-80	-6000	-3	-100	-100	100	.09
40	325	10	-600	0	-3000	-3	-100	-100	100	.24
40	325	10	-600	0	-3000	-3	100	-100	100	•53
40	325	10	-600	0	0	-6	-100	-100	150	.29
40	325	10	-600	0	0	-3	100	-100	150	•20
40	325	10	-600	20	0	-3	-100	-100	150	•24
40	325	10	-300	20	-3000	-3	100	-100	200	.46
40 40	325 325	20 20	-900 -600	-40 -80	0 BELOW	-3 -3	-100 -100	100 -100	-100 -100	•22
40	325	20	-600	-60	-6000	-3	-100	-100	-100	.24
40	325	30	-900	-60	0	-3	-100	-100	-150	.18
40	325	30	-900	-40	Ŏ	-3	-100	-100	-100	.02
60	314	10	-600	Ö	-3000	-3	150	-100	-100	.17
60	314	10	-600	0	-3000	-3	150	-100	100	.10
60	314	10	-600	0	0	-3	-100	-100	-100	•13
60	314	10	-600	0	0	-3	100	-100	100	.20
60	314	10	-300	0	C	-3	-100	-100	100	.29
60	314	10	-300	20	0	-3	100	-100	-100	• 36
60	314	20	-600	-20	-3000	-3	100	-100	-100	•29
60	314	20	-600	0	-3000	-3	-100	-100	-100 -100	•32
60	314	20	-300 -300	20 -60	0 BELOW	-3 -3	100 -100	-100 -100	-100	.26
60 60	314 325	30 10	-600	-80	-3000	-3	100	-100	-100	•41
60	325	10	-600	ŏ	-3000	-3	100	-100	100	.19
60	325	10	-600	ŏ	-3000	-3	100	-100	150	.17
60	325	io	-600	ŏ	0	-3	100	-100	200	.05
60	325	10	-600	20	Ŏ	-3	-100	-100	150	.10
60	325	10	-300	20	-3000	-3	100	-100	200	.29
60	325	20	-1200	-80	-6000	-3	-100	-100	-100	.18
60	325	20	-900	-80	BELOW	-3	-100	-1'00	-100	.16
60	325	20	-900	-60	0	-3	-100	100	-100	•22
		30	-600	-40	0	-3	-100	-100	-150	•06
60	325			_	_					
	314 314	10 10	-900 -600	0	0	-3 -3	-100 -100	-100 -100	150 -100	•15 •07

TABLE LXXXIII - Continued

STEA	DY 5	TATE.	DF 5CE	NT.	R	000 LB	(CONT	INUED)		
VEL	RPM	TORO	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
70	314	20	-600	0	-3000	-3	-100	-100	-100	.13
70	314	20	-600	0	-3000	-3	150	-100	-100	.08
70	314	20	-300	-20	-3000	-3	100	-100	-100	.24
70	314	20	-300	0	0	-3	100	-100	-100	-18
70	325	10	-1200	-60	BELOW	-3 -3	-100 -100	-100	100 -100	•09 •27
70 70	325 325	10 10	-900 -600	-60)	-3000	-3	100	100 -100	-100	.19
70	325	10	-600	Ŏ	0	-3	100	-100	100	.30
70	325	10	-300	20	-3000	-3	100	-100	200	.15
70	325	10	-300	40	-3000	-3	100	-100	150	.18
70	325	20	-1200	-80	-6000	-6	-100	-100	-100	.04
70	325	20	-900	-80	BELOW	- 3	-100	-100	100	•09
70	325	20	-600	-60	-6000	-3	-100	-100	-100	.22
70	325	20	-600	-40	0	-3	-100	-100	-150	•06
75 75	314	10	-900	0	0	-3 -3	-100	-100	150	•20
75	314 314	10 10	-600 -600	0	0	-3 -3	-100 100	-100 -100	-100 -100	•23 •07
75	314	10	-600	20	ő	-3	-100	-100	-100	•15
75	314	20	-600	ō	-3000	-3	-100	-100	-100	.13
75	314	20	-600	ŏ	-3000	-3	100	-100	-100	.20
75	314	20	-600	0	-3000	-3	150	-100	-100	.08
75	314	20	-300	-20	-3000	-3	100	-100	-100	-14
75	314	20	-300	0	-3000	-3	-100	-100	-100	•49
75	314	20	-300	0	-3000	-3	-100	-100	100	•12
75	314	20	-300	20	0	-3	-100	-100	-100	•30
75 75	325 325	10	-1200 -900	-60	BELOW -3000	-3 -3	-100 -100	-100	100	•09
75	325	10 10	-900	-60 -60	-3000	-3	-100	-100 -100	-100 -100	.05 .27
75	325	10	-900	0	ŏ	-3	-100	-100	-100	-25
75	325	10	-900	ŏ	Ö	-3	-100	-100	150	.15
75	325	10	-600	0	-3000	-3	100	-100	-100	.19
75	325	10	-600	0	0	-3	100	-100	100	•34
75	325	10	-600	0	0	-3	100	-100	150	•10
75	325	10	-300	20	-3000	-3	100	-100	150	•06
75	325	20	-900	-80	-6000	-3	-100	-100	-100	•08
75 75	325 325	20 30	-600 -600	-60 -60	0	-3 -3	-100 -100	-100 100	-150 -150	•18 •18
80	314	10	-900	0	Ö	-3	-100	-100	150	•05
80	214	10	-600	ŏ	ŏ	-3	-100	-100	-100	.15
80	314	20	-600	-60	-6000	-3	-100	-100	-100	•22
80	314	20	-600	0	0	-3	-100	-100	-100	•36
80	314	20	-300	0	-3000	-3	-100	-100	-100	.10
80	314	20	-300	0	0	-3	100	-100	-100	-18
80	314	20	-300	20	0	-3	-100	-100	-100	•07
80 80	314 325	30 10	-300 -600	-60 20	BELOW	-3 -3	-100 100	100 -100	-100 150	•24 •21
80	325	20	-1200	-80	-6000	-6.	-100	-100	-100	•04
80	325	20	-1200	-80	-3000	-3	-100	-100	-100	.63
80	325	20	-1200	-60	BELOW	-3	-100	-100	-100	.10
80	325	20	-900	-80	-6000	-3	-100	-100	-100	.08
80	325	20	-600	-60	0	-3	-100	-100	-150	.18
80	325	20	-600	0	0	-3	-100	-100	-100	•21
80	325	20	-600	0	0	-3	100	-100	-100	•05
80	325 314	30 10	-600	-80	-3000	-3	-100	-100	-100	•13
85 85	314	10 10	-900 -600	0	0	-3 -3	100 -100	-100 -100	100 -100	•22
	717	10	-500				-100	-100	-100	•07

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TABLE LXXXIII - Continued

STE	ADY 5	TATE	DESCE	NT•	Я	000 LB	(CONT	INUFD)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
85	314	20	-600	-60	-6000	-3	-100	-100	-100	•22
85	314	20	-600	ō	0	-3	-100	-100	-100	.41
85	314	20	-300	0	0	-3	100	-100	-100	.37
85	325	10	-600	20	Ō	-3	100	-100	150	.12
85	325	20	-1200	-80	-6000	-3	-100	-100	-100	.18
85	325	20	-600	-80	-3000	-3	-100	-100	-100	.45
85	325	20	-600	-60	0	-3	-100	-100	-100	.48
85	325	20	-600	-60	0	-3	-100	100	-100	• 45
85	325	20	-600	0	0	-3	-100	-100	-100	• 30
85	325	20	-600	0	0	-3	100	-100	-100	• 30
85	325	20	-600	20	0	-3	100	-100	100	•91
85	325	30	-1200	-80	-6000	-3	-100	-100	-100	•04
85	325	30	-600	-80	-6000	-3	00	-100	-100	•71
35	325	30	-600	-80	-6000	3	-100	-100	-100	•04
85	325	30	-600	-80	-3000	-3	-100	-100	-100	• 09
85	325	30	-600	-80	-3000	3	-100	-100	-130	•05
90	314	20	-600	0	0	-3	-100	-100	-100	•17
90	314	30	-600	-80	-6000	-3	-100	-100	-100	•77 •47
90	314	30	-600	-60	BELOW	-3	100	-100	-100 -100	75
90	325	20	-1200	-80	-6000	-3	-100	-100	-100	.08
90	325	20	-900	-80	-6000	-3	-100 150	-100 -100	100	•02
90	325	20	-900	20	-3000 0	-3 -3	-100	-100	-100	.09
90	325	20	-600	0	0	-3	100	-100	-100	.30
90	325	20	-600 -900	-80	-6000	-3	-100	-100	-100	1.83
90 90	325 325	30 30	-600	-80	-6000	-6	-100	-100	-100	.04
90	325	30	-600	-80	- 6000	-3	-100	-100	-100	1.49
90	325	30	-600	-80	-6000	3	-100	-100	-100	.04
90	325	30	-600	-80	-3000	-3	-100	-100	-100	.30
90	325	40	-600	-80	-6000	-3	-100	-100	-100	.13
95	314	30	-1200	-80	-6000	-3	-100	-100	-100	.43
95	314	30	-600	-80	-6000	-3	-100	-100	-100	2.10
95	314	30	-600	-80	-6000	-3	100	-100	-100	.26
95	314	30	-600	-60	-6000	-3	-100	-100	-100	•22
95	314	30	-600	-60	-6000	-3	100	-100	-100	1.68
95	314	30	-300	-40	-6000	-3	-100	-100	-100	.17
95	314	40	-1200	-80	-6000	-3	-100	-100	-100	•03
95	325	10	-900	40	0	-3	100	-100	150	.08
95	325	20	-900	20	-3000	-3	150	-100	100	•12
95	325	30	-900	-80	-6000	-3	-100	-100	-100	.54
95	325	30	-900	-80	-6000	-3	100	-100	-100	•09
95	325	30	-600	-80	-6000	-6	-100	-100	-100	.04
95	325	30	-600	-80	-6000	-3	-100	-100	-100	.49
95	325	40	-600	-100	BELOW	-3	100	-100	-100	• 25
95	325	40	-600	-80	-6000	-3	-100	-100	-100	•57 •23
95	325	40	-600	-80	-6000	-3	100	-100	-100	.29
100	314	30	-900	-80	-3000	-3	-100	-100	-100 -100	.31
100	314	30	-900	-60	-6000	-3	-100	-100 -100	-100	1.60
100	314	30	-900	-60	-3000	-3 -3	-100 100	-100	-100	.19
100	314	30	-600	-80	BELOW	-3	-100	-100	-100	1.98
100	314	30	-600	-80 -80	-6000 -6000	-3	100	-100	-100	1.27
100	314	30	-600 -600	-60	BELOW	-3	100	-100	-100	.48
100 100	314 314	30 30	-600	-60	~9000	~ 3	-100	-100	-100	1.66
100		30	-600	-60	-6000	-3	100	-100	-100	.17
100	314 325	10	-900	40	-3000	-3	100	-100	150	.24
100	367	. 0	- 700	70	2000					

TABLE LXXXIII - Continued

STEA	DY 5	TATE.	DESCE	NT.	8	000 LB	(CONT	INUED)		
VEL	RPM	TORO	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
100	325	10	-900	40	0	-3	100	-100	150	.15
100	325	20	-900	40	-3000	-3	100	-100	100	.12
100	325	30	-900	-80	-6000	-3	-100	-100	-100	. 08
105	314	30	-900	-60	-3000	-3	-100	-100	-100	.15
105	314	30	-600	-80	BELOW	-6	100	-100	-100	•03
105	314	30	-600	-60	-6000	-3	-100	-100	-100	•61
105	314 314	30 40	-600 -600	-60 -60	-6000	-3 -3	100	-100	-100	1.74
105	325	10	-900	40	-6000	-3	100 100	-100	-100	1.01
110	314	40	-600	-60	-6000	-3	100	-100 -100	200 -100	.15 1.04
90	314	10	-1800	-20	-3000	-3	100	-100	-100	•05
95	314	20	-1800	-20	-3000	-3				.07
95	314	20	-1800	-20	-3000	3				•04
100	314	10	-1800	-20	-3000	3				.04
100	314	20	-1800	-20	-3000	-3				.07
100	314	30	-600	-40	-6000	-3				.09
100	314	30	-600	-40	-3000	-3				.10
105	314	20	-1500	-60	-6000	-3				.08
105	316	30	-600	-40	-3000	-3				.47
105	325	10	-1800	-20	-3000	-3				.19
110	314	30	-600	-40	-3000	-3				•16
115	314	20	-1500	-60	-6000	-3				•08
115	314	30	-600	-40	-3000	-3				.29
120	314	20	-1500	-60	-6000	-3				.19
60		10	-900	0	-3000	-6	100	-100	150	.19
70 75		10	-900	0	-3000	-6	100	-100	150	.19
80		10 10	-900 -900	0	-3000	-3	100	-100	150	-14
85		20	-300	0	-3000 0	-3	100	-100	150	• 29
90		10	-900	Ö	-3000	-3 -3	100 100	100 -100	-100 100	•13 •29
90		20	-600	20	-3000	-3	150	100	-100	.17
90		20	-600	20	0	-3	100	100	-100	.92
90		20	-600	20	ŏ	-3	150	100	-100	.03
90		50	-300	ő	ŏ	-3	100	100	-100	.19
90		20	-300	ŏ	ŏ	-3	100	150	-100	.38
90		20	-300	ō	Ŏ	-3	150	100	-100	.76
90		20	-300	20	Ö	-3	100	100	-100	.32
95		10	-600	20	-3000	-3	150	100	-100	.15
95		20	-600	20	-3000	-3	150	100	-100	•13
95		20	-600	20	0	-3	100	100	-100	.63
95		20	-600	20	0	-3	150	100	-100	1.28
95		20	-300	0	0	-3	100	100	-100	.49
95		20	-300	0	0	-3	100	150	-100	•10
95		20	-300	0	0	-3	150	150	-100	•03
100		20	-600	20	-3000	-3	150	100	-100	.28
100		20	-600	20	0	-3	100	100	-100	.19
100 100		20 20	-600 -300	20	0	-3	150	100	-100	.26
105		20		0	0	-3 -3	100	150	-100	. 38
105		20	-600 -600	20 20	0	-3 -3	100 100	100 150	-100 -100	•12 •20
105		20	-600	20	0	-3	150	150	-100	.26
100		20	-000	20	U	-,	150	100	-100	• 20

TABLE LXXXIII - Continued

STE	ADY S	TATE.	DESCE	NT.	9	000 LB				
17.	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	20	-300	0	-3000	-3	150	-100	-100	.17
40	314	10	-600	0	-3000	-6	100	-100	100	.07
40	314	10	-600	0	-3000	-3	150	-100	100	.22
40	314	10	-300	0	-3000	-3	100	-100	100	.19
40	314	20	-900	-60	BELOW	-3	-100	-100	-100	.17
40	314	20	-300	0	-3000	-3	100	-100	-100	.12
40	314	20	-300	0	-3000	-3	100	-100	100	.10
40	314	20	-300	0	-3000	-3	150	-100	-100	.10
40	325	10	-900	0	-3000	-6	-100	-100	100	•09
40	325	10	-300	0	-3000	-3	-100	-100	-100	• 05
40	325	10	-300	0	-3000	-3	-100	-100	100	•51
40	325	20	-600	-20	-3000	-3	-100	-100	-100	• 35
40	325	20	-600	0	-3000	-3	100	-100	-100	•17
40	325	20	-300	0	-3000	-3	-100	-100	-100	.14
40	325	20	-300	0	-3000	-3	-100	-100	100	.41
60	314 314	10 10	-600 -300	0	-3000 0	-6 -3	100 150	-100 -100	100 -100	•10 •28
60 50	314	20	-900	-60	BELOW	-3	-100	-100	-100	.05
60	314	20	-600	-20	-3000	-3	100	-100	100	.29
60	314	20	-600	0	-3000	-3	150	-100	-100	.20
60	314	20	-600	ŏ	-3000	-3	150	-100	100	•09
60	314	20	-300	ŏ	-3000	-6	100	-100	-100	.10
60	314	20	900	ŏ	-3000	-3	150	-100	-100	.05
60	325	10	-900	ŏ	-3000	-3	-100	-100	100	.14
60	325	20	-600	-20	-3000	-3	100	-100	100	.08
60	325	20	-600	-20	-3000	-3	150	-100	-100	• 30
70	314	10	-300	20	0	-3	150	-100	100	• 05
70	314	20	-900	~60	BELOW	-3	100	-100	-100	• 09
70	325	10	-900	0	-3000	-3	-100	-100	100	-17
70	325	20	-600	-20	-3000	-3	100	-100	-100	.08
75	314	20	-900	-60	BELOW	-3	100	-100	-100	•10
75	314	20	-600	0	-3000	-3	150	-100	-100	•37
75	314	20	-300	0	-3000	-3	150	-100	-100	•59
75	314	20	-300	20	0	-3 -3	150 -100	-100 -100	-100 -100	•05 •19
75 75	325	10 10	-900 -900	0	-3000 -3000	-3	-100	-100	100	•10
75	325 325	20	-600	-80	BELOW	-3	-100	-100	-100	.27
80	314	20	-900	-60	BELOW	-3	100	-100	-100	.06
80	314	20	-320	20	0	-3	100	100	-100	.24
80	314	20	-300	20	Ğ	-3	150	-100	-100	.05
80	314	30	-300	-40	-6000	-3	150	-100	-100	.05
80	314	30	-300	0	-3000	-3	150	-100	-100	.24
80	325	30	-600	-80	BELOW	-3	-100	-100	-100	.27
80	325	30	-600	-80	BELOW	-3	100	-100	-100	.14
85	314	10	-900	-40	BELOW	-3	100	-100	100	•06
85	314	20	-300	0	-3000	-3	150	-100	-100	•70
85	314	30	-300	0	-3000	-3	150	-100	-100	•10
85	314	40	-300	-40	-6000	-3	200	-100	-100	•05
85	325	30	-600	-80	BELOW	-3	100	-100	-100	•09
90	314	20	-900	-40	BELOW	-3	100	-100	-100	•10
90	314	20	-900	-40	-6000	-3	100	-100	100	•05
90	314	20	-300	-40	-3000	-3 -3	150	-100	-100 -100	•09 •05
90	314	40	-300	-40	-6000	-3 -3	150 100	-100 -100	-100	•10
95	314	20	-900	-40	-6000	-,	100	-100	-100	• 10

STEAD				TABLE LXXXIII - Concluded												
	Y 5	TATE.	DESCE	NT.	9	000 LR	(CONT	INUED)								
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME						
95	314	30	-600	-40	-6000	-3	100	-100	-100	.22						
	314	20	-1200	-20	-3000	-3	100	-100	-100	•12						
	314	20	-900	-40	-3000	-3	-100	-100	-100	.45						
	314	20	-900	-20	-3000	-3	-100	100	-100	.26						
	314	20	-600	-40	-6000	-3	100	-100	-100 -100	•14 •03						
	314	30	-1500	-40	-6000	-3 -3	100 -160	~100 - 100	-100	.76						
	314	30 30	-900 -300	-40 -40	-3000 -6000	-3	100	-100	-100	.03						
	325	20	-900	-20	-3000	-3	-100	100	-100	.29						
	314	20	-1200	-20	-3000	-3	100	-100	-100	.41						
	314	20	-900	-40	-3000	-3	-100	-100	-100	.38						
	314	30	-900	-60	BELOW	-6	150	-100	-100	.09						
105	314	30	-900	-40	-6000	-3	150	-100	-100	•05						
	314	20	-2100	-40	-6000	-3	100	-100	-100	.28						
	314	30	-1200	-60	BELOW	-3	-100	-100	-100	.12						
	314	30	-1200	-60	-6000	-3 -3	-100 100	100 -100	-100 -100	.43 .22						
	314 314	30 30	-1200 -900	-20 -40	-3000 -6000	-3	150	-100	-100	.39						
	314	20	-2100	-40	-6000	-3	100	-100	-100	.12						
	314	30	-1200	-60	-6000	-3	-100	-100	-100	.34						
	314	30	-1200	-60	-6000	-3	-100	100	-100	.21						
	314	30	-900	-60	BELOW	-6	200	-100	-107	.09						
	314	30	-900	-60	BELOW	-3	-100	-100	-1 CU	.31						
115	314	30	-900	-40	-6000	-3	100	-100	-100	.65						
	314	30	-900	-40	-6000	-3	150	-100	-100	•13						
120	314	30	-900	-60	BELOW	-3	200	-100	-100	•07						
STEAD	Y 5	TATE.	AUTOR	OTATIO	N. 7	000 LB										
VEL 70	RPM 304	TORQ	R/C	DAT	ALT		CY-LNG	CY-LAT	COLL	TIME						
_	304 314	BLW Blw	-2100 BELOW	20 - 20	0 -3000	-3 -3	-100 100	-100 -100	300 400	.08						
	304	BLW	-2100	20	- 3000	-3	-100	-100	300	.05 .23						
	314	BLW	BELOW	-20	ŏ	-3	100	-100	400	.09						
	314	BLW	-2100	20	ŏ	-3	-100	-100	300	.11						
80	325	BLW	BELOW	Ō	Ŏ	-3	-100	-100	400	•02						
80	325	BLW	BELOW	0	0	-3	100	-100	400	.09						

TAB	LE L	XXXIV	IN F	RANGES	OF TE	SIDEWA EN PARA SS WEI	METERS			JTED	
RIGH	TSID	E FLI	GHT •	ŀ	OVER.		800	0 LB			
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME	
BLW	304	30	-300	20	0	-3	-100	-100	-100	.08	
BLW	314	30	-300	20	0	-3	-100	-100	-100	.41	
RIGH	TSID	E FLI	GHT•	ŀ	OVER.	9000 LB					
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME	
BLW	314	30	-300	0	-3000	-3	-100	-100	-100	.48	
BLW	314	30	-300	0	-3000	-3	100	-100	-100	.16	

TABLE LXXXV.	TIME FOR LONGITUDINAL REVERSAL DISTRIBUTED
	IN RANGES OF TEN PARAMETERS BY MISSION
	SEGMENT AND GROSS WEIGHT

LONG	I TUD	NAL	PEVERSAL	_ •	HOVER.		700	O LB		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	10	300	-20	-3000	-3	-100	-100	-100	•03
BLW	325	10	300	-20	-3000	-6	-100	-100	200	•02
BLW BLW	325 334	20 30	300 -300	-20 -20	-3000 -6000	3 -3	-100 -100	-100 -100	-100 -100	•07 •24
DLW	334	30	-300	-20	90000	-,	-100	-100	-100	• 4 7
		20.00		_			000	0.10		
LONG	ITUD	INAL	REVERSA	L,	HOVER •		800	O LB		
VEL	RPM	TORQ	R/C	•	ALT	A/S ACC		.	COLL	TIME
BLW	314	30	-600		-6000	-3	-100	-100	-100	•09
BLW BLW		30 30	-300 -300	_	-3000 0	-6 -3	-100 -150	-100 -100	-100 -100	•02
DEM	214	,,	-300	•	Ū	-,	-170	-100	-100	•
LONG	ITUDI	NAL	REVERSAL	•	ASCENT	,	800	O LB		
VEL		TORQ	R/C	OAT	ALT		CY-LNG	CY-LAT	COLL	TIME
BLW	314	30		0		9	100	-100		.08
BLW	314	40	-300	0	-3000	-3	150	-100	-100	•05
LONG	ITUDI	NAL	REVERSAL	. •	LFVEL F	LIGHT.	600	0 LB		
VEL	RPM	TORQ	R/C		ALT			CY-LAT	COLL	TIME
BLW	314	20	-300			+3		-100		.05
40		20	-300		-6000	-3	-100		-100	.05
1.046		ALA I	DEVENEAL		IEVEL S	LI TOUT -	700	Λ I B		
			REVERSAL							
VEL Blw	RPM 314	TORQ 30	R/C -300	OAT	ALT	A/S ACC			COLL	TIME
BLW	314	30	-300	-60	-6000 -6000	-3 3	-100 -100	-100 -100	-100 -100	•16 •09
BLW	314	40	-300	-60	-6000	-6	-100	-100	-100	•11
40	314	10	-300	-80	-6000	-3	-100	-100	100	• 09
		-								

TABLE LXXXVI.	TIME FOR LATERAL REVERSAL DISTRIBUTED	IN
	RANGES OF TEN PARAMETERS BY MISSION	
	SEGMENT AND GROSS WEIGHT	

LATE	ERAL	REVER	SAL.	Н	DVER .			700	O LB		
VEL BLW BLW	RPM 325 325	TORG 20 30	R/C -300 -300	OAT -20 -20	AL T 0 0	•	ACC -3 -3	-100 -100	-100 -100	COLL -100 -100	* 1 I ME * 03 * 09
LATE	RAL	REVER	SAL.	Ĥ	OVER.			800	O LB		
VEL BLW	RPM 314	TORQ 30	R/C -300	OAT O	ALT -3000		ACC -3	CY-LNG -100	CY-LAT -100	COLL -100	TIME

TABLE LX	XXVI -	Concluded
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LATERAL	REVERSAL .	ASCENT.	7000 LB	
VEL RPM 80 325	TORQ R/C 30 1209	DAT ALT A/S 0 0	ACC CY-LNG CY-LAT 3 -100 -100	COLL TIME
LATERAL	REVERSAL.	ASCENT •	9000 LB	
VEL RPM 60 325	TORQ R/C 30 300	• • • • • • • • • • • • • • • • • • • •	ACC CY-LNG CY-LAT	COLL TIME
LATERAL	REVERSAL •	LEVEL FLI	GHT • 7000 LB	
VEL RPM 100 314 105 314	TORQ R/C 20 -600 20 -600	OAT ALT A/S 0 -3000 0 -3000	ACC CY-LNG CY-LA? -3 100 -100 -3 100 -100	COLL TIME -100 .07 -100 .05
LATERAL	REVERSAL.	LFVEL FLI	GHT • 8000 LB	
VEL RPM 90 325 90 325	TORQ R/C 20 -600 20 -300	OAT ALT A/S	ACC CY-LNG CY-LAT -3 100 -100 -3 -100 -100	COLL TIME -100 .07 -100 .19
LATERAL	REVERSAL.	DESCENT.	9000 LB	
VEL RPM	TORQ R/C	OAT ALT A/S	ACC CY-LNG CY-LAT	COLL TIME
70 314	20 -300		-3 100 -100	-100 .08
70 314 70 325	20 -300 20 -300		-3 100 -100 -3 100 -100	100 •07 100 •07

TABLE LXXXVII. TIME FOR TRANSIENT DISTRIBUTED IN RANGES OF TEN PARAMETERS BY MISSION SEGMENT AND GROSS WEIGHT

VEL	RPM	TORQ	R/C	OAT	ALT	A/5	ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	BLW	BLW	-300	-60	-6000	_	-3	-100	-100	-100	5
BLW	BLW	BLi	-300	-20	-3000		-3	-100	-100	200	•31
BLW	BLW	10	-300	-40	-6000		-3	-100	-1/20	-100	.18
BLW	274	20	-300	0	-3000		-3	-100	-100	-100	.34
LW	284	10	-300	-60	-6000		-3	-100	-100	-100	.08
BLW	284	10	-300	-20	-3000		-3	-100	-100	100	•11
SLW	294	10	-300	-60	-6000		-3	-100	-100	-100	.08
BLW	314	20	-300	-20	-3000		-3	-100	-100	-100	•11
BLW	325	30	-300	-20	-3000		- 3	-100	-100	-100	. 34

TABLE LXXXVII - Continued

TRA	NSIEN	IT •	GRD C	ONDIT	ION, 7	000 LB				
VEL	RPM	TORO	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	BLW	BLW	-300	-80	BELOW	-3	-100	-100	-100	-14
BLW	BLW	BLW	-300	-60	-6000	-3	-100	-100	-100	.58
BLW	BLW	BLW	-300	-40	~6000	-3	-100	-100	100	.08
BLW BLW	BLW	BLW	-300 -300	-40 -20	-3000	-3 -3	-100 -100	-100	-100	•10
BLW	BLW	BLW BLW	-300	-20	-3000 -3000	-3	-100	-100 -100	-100 100	•40 •57
BLW	BLW	BLW	-300	-20	-3000	-3	-100	-100	150	.34
BLW	BLW	BLW	-300	-20	-3000	-3	-100	-100	200	•09
BLW	BLW	BLW	-300	0	-3000	-3	-100	-100	-100	•72
BLW	BLW	BLW	-300	0	-3000	-3	-100	-100	100	•24
BLW	BLW	BLW	-300	0	-3000	-3	-100	-100	150	•53
BLW	BLW	BLW	-300 -300	0	-3000 -3000	-3 3	-100 -100	-100 -100	200 -100	•55 •15
BLW	BLW	BLW	-300	40	-3000	-3	-100	-100	-100	.25
BLW	BLW	BLW	-300	40	ŏ	-3	-100	-100	100	.25
BLW	BLW	10	-300	-80	BELOW	-3	-100	-100	-100	•09
BLW	BLW	10	-300	-60	BELOW	-3	-100	-100	-100	.26
BLW	BLW	10	-300	-60	-6000	-6	-100	-100	100	•11
BLW	BLW	10	-300 -300	-60 -60	-6000 -6000	-3 -3	-100	-100	-100	•67
BLW	BLW	10 10	-300	-60	-6000	-3	-100 -100	-100 -100	100 150	•06 •46
BLW	BLW	10	-300	-40	-6000	-3	-100	-100	150	.08
BLW	BLW	io	-300	-40	-3000	-3	-100	-106	-100	.22
BLW	BLW	10	-300	-40	-3000	-3	-100	-100	100	•10
BLW	BLW	10	-300	-20	-3000	-3	-100	-100	-100	•05
BLW	BLW	10	-300	-20	-3000	-3	-100	-100	100	•05
BLW	3LW	10 10	-300 -300	-20 -20	-3000 -3000	-3 -3	-100 -100	-100 -100	150 200	•25 •04
BLW	BLW	10	-300	-20	-3000	3	100	-100	150	.09
BLW	BLW	10	-300	0	-3000	-3	-100	-100	-100	.09
BLW	BLW	10	-300	0	-3000	-3	-100	-100	150	.06
BLW	BLW	20	-300	-40	-6000	-3	-100	-100	150	•12
BLW	BLW	20	-300	-20	-3000	-6	-100	-100	150	•02
BLW	BLW	20	-300 -300	-20 -20	-3000 -3000	-3	-100 -100	-100 -100	150 -100	•05 •05
BLW	BLW	20 20	-300	-20	-3000	-3	-100	-100	150	•06
BLW	274	BLW	-300	-20	-6000	-3	-100	-100	150	.22
BLW	274	10	-300	-60	-6000	-3	-100	-100	-100	•11
BLW	274	10	-300	-60	-6000	-3	-100	-100	150	•21
BLW	274	10	-300	-40	-6000	-3	-100	-100	200	.19
BLW	274	10	-300	-40	-3000	-3	-100	-100	-100	-16
BLW BLW	274	10 10	-300 -300	-40 -20	-3000 -3000	-3 -3	-100 -100	-100 -100	100 -150	•15 •05
BLW	274 274	10	-300	-20	-3000	-3	-100	-100	-100	.03
BLW	274	10	-300	-20	-300C	-3	-100	-100	200	.09
BLW	274	10	-300	-20	-3000	-3	-100	-100	250	.05
BLW	274	10	-300	-20	-3000	-3	100	-100	200	•09
BLW	274	10	-300	0	-3000	-3	-100	-100	100	•09
BLW	274	10	-300 -300	0	+3000	+3 -3	-100	-100	250	•06
BLW BLW	274 274	20 20	-300 -300	-80 -40	BELOW BELOW	-3 -3	-100 -100	-100 -100	-100 -100	•13
BLW	274	20	-300	-40	-6000	-3	-100	-100	-100	.23
BLW	274	20	-300	-20	-3000	-6	-100	-100	150	.02
BLW	284	BLW	-300	0	-3000	-3	-100	-100	150	.08
BLW	284	10	-300	-60	BELOW	-3	-100	-100	-100	•11
BLW	284	10	-300	-60	-6000	-3	-100	-100	-100	•13

TABLE LXXXVII - Continued

TRAN	ISIEN	T •	GPD	CONDIT	ION. 7	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	DAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	284	10	-300	-60	-6000	-3	-100	-100	100	•05
BLW	284	10	-300	-60	-6000	-3	-100	-100	150	.07
BLW	284	10	-300	-40	-3000	-3	-100	-100	100	•11
BLW	284	10	-300	-20	-6000	-3	-100	-100	200	•22
BLW BLW	284 284	10 10	-300 -300	-20 -20	-3000 -3000	-3 -3	-100	-100	-100	•03
BLW	284	10	-300	-20	-3000	-3	-100 -100	-100 -100	150 200	•06 •05
BLW	284	10	-300	-20	-3000	-3	-100	-100	250	•04
BLW	284	10	-300	ő	-3000	-3	-100	-100	-150	.07
BLW	284	10	-300	ŏ	-3000	-3	-100	-100	100	•23
BLW	284	10	-300	0	-3000	-3	-100	-100	200	•05
BLW	284	10	-300	0	-3000	-3	-100	-100	250	.14
BLW	294	BLW	-300	0	-3000	-3	-100	-100	150	•05
BLW	294	10	-300	-80	BELOW	-3	-100	-100	-100	•09
BLW	294	10	-300	-60	-6000	-3	-100	-100	100	•66
BLW	294	10	· 300	-40	-6000	-3	-100	-100	200	•19
BLW	294	10 10	-300 -300	-40 -40	-6000 -3000	-3	-100	-100	250	•04
BLW BLW	294 294	10	-300	-40	-3000 -3000	-3 -3	-100 -100	-100 -100	-100 100	•20 •04
BLW	294	10	-300	-20	-3000	-3	-100	-100	100	.04
BLW	294	10	-300	-20	-3000	-3	-100	100	250	.03
BLW	294	10	-300	ō	-3000	-3	-100	-100	100	.06
BLW	294	10	-300	0	-3000	-3	-100	-100	150	.07
BLW	294	10	-300	0	-3000	-3	-100	-100	250	•05
BLW	294	20	-300	-80	BELOW	-3	-100	-100	-100	.13
BLW	294	20	-300	-20	-3000	-3	-100	-100	200	.02
BLW	294	20	~300	-20	-3000	-3	-100	-100	250	•03
BLW BLW	294 304	30 BLW	-300 -300	20 0	-3000	-3 -3	-150 -100	-100 -100	-100 200	•12 •08
BLW	304	10	-300	-80	BELOW	-3	-100	-100	100	.07
BLW	304	10	-300	-60	-6000	-3	-100	-100	100	.36
BLW	304	10	-300	-60	-6000	-3	-100	-100	200	.07
BLW	304	10	-300	-20	-6000	-3	-100	-100	250	•32
BLW	304	10	-300	-20	-3000	-3	-100	-100	100	•04
BLW	304	10	-300	-20	-3000	-3	-100	-100	250	•09
BLW	304	10	-300	-20	-3000	-3	-100	-100	300	•05
BLW	304	10	-300	-20	-3000	-3	-100	100	250	•03
BLW BLW	304 304	10 10	-300 -300	0	-3000 -3000	-3 -3	-100 -100	-100 -100	-200 150	.07 .23
BLW	304	10	-300	ŏ	-3000	-3	-100	-100	200	.08
BLW	304	10	-300	20	-3000	-3	-100	-100	200	.08
BLW	304	20	-300	-60	BELOW	-3	-100	-100	-100	.07
BLW	304	20	-300	-40	-3000	-3	-100	-100	-100	-13
BLW	304	20	-300	-20	-3000	-3	-100	-100	200	•02
BLW	304	20	+300	20	0	-3	-100	-100	100	•12
BLW	304	30	-300	-40	-3000	-3	-100	-100	-100	•05
BLW	314 314	10 10	-300 -300	-60 -60	-6000 -6000	-3 -3	-100 -100	-100 -100	100 150	.14
BLW	314	10	-300	-40	-6000	-3	-100	-100	250	.04
BLW	314	10	-300	-40	-3000	-3	-100	-100	100	.04
BLW	314	10	-300	-20	-6000	-3	-150	-100	250	.04
BLW	314	10	-300	-20	-3000	-3	-100	-100	100	•06
BLW	314	10	-300	-20	-3000	-3	-100	-100	250	.29
BLW	314	10	-300	-20	-3000	-3	-100	100	250	•02
BLW	314	10	-300	-20	-3000	-3 -3	100	-100	250	•07
BLW Blw	314 314	10 10	-300 -300	0	-3000 -3000	-3 -3	-100 -100	-100 -100	200 250	.08
BLW	314	10	-300	Ö	-3000	-3	-100	-100	300	.06
OL W	314	10	- 300		- 3000		- 100	100	300	

TABLE LXXXVII - Continued

***			CDD	CONDIT	10N- 7	000	LB	CONT	INUEDI		
	ISTEN										TIME
VEL	RPM	TORO	R/C	OAT	ALT	A/5		CY-LNG	CY-LAT	COLL	
BLW BLW	314 314	10 20	600 -300	0 -60	-3000 Below		-3 -3	-100 -100	-100 -100	250 -100	.03 .15
BLW	314	20	-300	-60	BELOW		-3	-100	-100	150	•15
BLW	314	20	-300	-40	-3000		-3	-100	-100	-100	.13
BLW	314	20	-300	-40	-3000		-3	-100	-100	100	.15
BLW	314	20	-300	-20	0		-3	-100	-100	-100	وں ،
BLW	314	20	-300	0	-3000		-3	-100	-100	-100	.35
BLW	314	20	300	-60	-6000		-3	-100	-100	-100	.09
BLW	314	20	300	-60	-6000		-3	-100	-100	100	.07
BLW	314	30	-300	-80	-6000		-3	-100	-100	-100	.16
BLW	314	30	-300	-60	BELOW		-3	-100	-100	-100	.43
BLW	314	30	300	-60	-3000		-3	-100	-100	-150	.14
BLW BLW	314 314	30 30	-300 -300	-40 -40	-6000 -3000		-3 -3	-100 -100	-100 -100	-100 -100	•32 •09
BLW	314	30	-300	-20	-3000		-3	-100	-100	-100	•05
BLW	314	30	-300	0	-3000		-3	-100	100	-100	.10
BLW	314	30	-300	ŏ	0000		-3	-100	-100	-100	.12
BLW	314	30	300	-60	-6000		-3	-100	-100	-100	.11
BLW	314	30	300	-50	-6000		3	-100	-100	-100	.05
BLW	314	30	600	0	-3000		3	-100	-100	-100	•07
BLW	325	BLW	-300	0	-3000		-3	-100	-100	200	•12
BLW	325	10	-300	-80	BELOW		-3	-100	-100	100	•07
BLW	325	10	-300	-40	-6000		-3	-100	-100	250	•05
BLW	325	10	-300	-40	-6000		-3	-100	-100	300	•19
BLW	325	10	-300	-20	-6000		-3	-150	-100	250	•10
BLW BLW	325 325	10 10	-300 -300	-20 -20	-6000 0		-3 -3	-150 -100	-100 -100	300 100	•04
BLW	325	10	-300	-20	Ö		-3	-100	-100	200	.16
BLW	325	10	-300	0	-3000		-3	-100	-100	200	.08
BLW	325	10	-300	Ŏ	0		-3	-100	-100	100	.16
BLW	325	10	-300	20	-3000		-3	-100	-100	250	.08
BLW	325	20	-300	-80	BELOW		-3	-:00	-100	-100	.16
BLW	325	20	-300	-40	-3000		-3	-100	-100	100	•12
BL.W	325	20	-300	-40	-3000		-3	100	-100	150	•15
BLW	325	20	-300	-20	-3000		-3	100	-100	100	•00
BLW	325	20	-300	-20	0		-3	-100	-100	-100	•17
BLW	325 325	20 20	-300 -300	0	-3000 0		-3 -6	-100 -100	-100 -100	100 -100	•12 •05
BLW	325	20	300	20	-3000		-3	-100	-100	-100	.14
BLW	325	30	-300	-60	BELOW		-3	-100	-100	-100	.08
BLW	325	30	-300	-60	-3000		-3	-100	-100	-100	.38
BLW	325	30	-300	-40	BELOW		-3	-100	-100	100	.19
BLW	325	30	-300	-40	-6000		-3	-100	-100	-100	.12
BLW	325	30	-300	-20	-6000		-3	-100	-100	-100	.03
BLW	325	30	-300	-20	-3000		-3	-100	-100	-100	•07
BLW	334	10	-300	40	-6000		-3	-100	-100	250	•09
BLW	334	10	-300	-20	-3000		-3	-100	-100	300	•14
BLW	334	30	-300 -300	-20 -20	-6000 -3000		3	-100	-100	-100	•05
BLW BLW	334 BLW	30 10	300 300	-100	BELOW		-3 -3	-100	-100	-100	•09 •17
BLW	274	10	300	-100	BELOW		-3				.04
BLW	284	10	- 300	-100	BELOW		-3				.04
BLW	294	10	-300	-100	BELOW		-3				.09
BLW	304	10	-300	-100	BELOW		-3				.03
BLW	314	10	-300	-100	BELOW		- 3				.03

TABLE LXXXVII - Continued

TRANSIENT • GRD CONDITION • 8000 LB VEL RPM TORO R/C OAT ALT A/S ACC CY-LNG CY-LAT COLL BLW BLW BLW -300 -60 -6000 -3 -100 -100 -100 BLW BLW BLW -300 0 -3000 -6 -100 -100 100 BLW BLW BLW -300 0 -3000 -3 -100 -100 150 BLW BLW BLW -300 0 -3000 -3 -100 -100 250 BLW BLW BLW -300 0 -3000 -3 -100 -100 250 BLW BLW BLW -300 0 -3000 -3 -100 -100 250	TIME .19 .03 .17 .57 .38 .33 .04 .14
BLW BLW BLW -300 -60 -6000 -3 -100 -100 -100 BLW BLW -300 0 -3000 -6 -100 -100 250 BLW BLW BLW -300 0 -3000 -3 -100 -100 100 BLW BLW BLW -300 0 -3000 -3 -100 -100 150 BLW BLW BLW -300 0 -3000 -3 -100 -100 200	.19 .03 .17 .57 .38 .33 .04 .14
BLW BLW BLW -300 -60 -6000 -3 -100 -100 -100 BLW BLW BLW -300 0 -3000 -6 -100 -100 250 BLW BLW BLW -300 0 -3000 -3 -100 -100 150 BLW BLW BLW -300 0 -3000 -3 -100 -100 200	.03 .17 .57 .38 .33 .04 .14
BLW BLW -300 0 -3000 -6 -100 -100 250 BLW BLW -300 0 -3000 -3 -100 -100 150 BLW BLW BLW -300 0 -3000 -3 -100 -100 200	.17 .57 .38 .33 .04 .14
BLW BLW BLW -300 0 -3000 -3 -100 -100 100 BLW BLW BLW -300 0 -3000 -3 -100 -100 150 BLW BLW BLW -300 0 -3000 -3 -100 -100 200	.57 .38 .33 .04 .14
BLW BLW BLW -300 0 -3000 -3 -100 -100 150 BLW BLW BLW -300 0 -3000 -3 -100 -100 200	.57 .38 .33 .04 .14
BLW BLW BLW -300 0 -3000 -3 -100 -100 200	.38 .33 .04 .14
BIU BIU BIU -200 A -2000 -2 -100 -100 3E0	.33 .04 .14 .31
BLW BLW BLW -300 0 -3000 -3 -100 -100 250	•14 •31
BLW BLW -300 0 -3000 -3 -100 -100 250	.31
BLW BLW BLW -300 0 0 -3 -100 -100 150	
BLW BLW BLW -300 0 0 -3 -100 -100 200	
BLW BLW BLW -300 20 -3000 -3 -100 -100 -100	.37
BLW BLW BLW -300 20 -3000 -3 -100 -100 100	•25
BLW BLW BLW -300 20 -3000 -3 -100 -100 150	•58
BLW BLW BLW -300 20 -3000 -3 -100 -100 200	•21
BLW BLW BLW -300 20 -3000 -3 100 -100 150 BLW BLW BLW -300 20 -3000 -3 100 -100 200	•12 •06
BLW BLW BLW -300 20 -3000 -3 100 -100 200	.25
BLW BLW BLW -300 20 0 -3 -100 -100 100	.22
BLW BLW BLW -300 20 0 -3 -100 -100 150	.66
BLW BLW BLW -300 20 0 -3 -100 -100 200	.74
BLW BLW BLW -300 40 -3000 -3 -100 -100 150	.26
BLW BLW 10 -300 -80 BE QW -3 -100 -100 -100	.21
BLW BLW 10 -300 -60 BELOW -3 -100 -100 -100	.11
BLW BLW 10 -300 -60 -6000 -3 -100 -100 -100	.40
BLW BLW 10 -300 -60 -6000 -3 -100 -100 100	.09
BLW BLW 10 -300 -40 BELOW -3 -100 -100 -100	•12
BLW BLW 10 -300 -40 -6000 -3 -100 -100 100	.52
BLW BLW 10 -300 -40 -6000 -3 -100 -100 150	•09
BLW BLW 10 -300 -20 -6000 -3 -100 -100 -100	•19
BLW BLW 10 -300 -20 -6000 -3 -100 -100 100	•10
BLW BLW 10 -300 0 -3000 -3 -100 -100 100 BLW BLW 10 -300 0 -3000 -3 -100 -100 150	•21
BLW BLW 10 -300 0 -3000 -3 -100 -100 150 BLW BLW 10 -300 0 -3000 -3 -100 -100 200	.16 .16
BLW BLW 10 -300 0 -3000 -3 -100 -100 250	1.03
BLW BLW 10 -300 0 0 -3 -100 -100 150	.08
BLW BLW 10 -300 20 -3000 -3 -100 -100 200	.07
BLW BLW 10 -300 20 0 -3 -100 -100 150	.06
BLW BLW 10 300 -60 -6000 -3 -100 -100 -100	.14
BLW BLW 10 300 -60 -6000 -3 -100 -100 100	.14
BLW BLW 20 -300 -20 -6000 -3 -100 -100 -100	.05
BLW 274 BLW -300 20 0 -3 -100 -100 250	.04
BLW 274 10 -300 -60 BELOW -3 -100 -100 -100	•11
BLW 274 10 -300 -60 -6000 -3 -100 -100 100	•10
BLW 274 10 -300 -40 BELOW -3 -100 -100 100	.14
BLW 274 10 -300 0 -3000 -6 -100 -100 250	•03
BLW 274 10 -300 0 -3000 3 -100 -100 200 BLW 274 10 -300 0 0 -3 -100 -100 200	•03 •07
BLW 274 10 -300 0 0 -3 -100 -100 200 BLW 274 10 -300 20 -3000 -3 -100 -100 200	.07
BLW 274 10 -300 20 0 -3 -100 -100 200	.06
BLW 274 10 -300 20 0 -3 100 -100 200	.07
BLW 274 20 -300 -60 -6000 -3 -100 -100 -100	.28
BLW 284 BLW -300 0 0 -3 -100 -100 250	.14
BLW 284 BLW +300 20 0 -3 -100 -100 200	.09
BLW 284 BLW -300 20 0 -3 -100 -100 250	•20
BLW 284 10 -300 -80 BELOW -3 -100 -100 100	•07
BLW 284 10 -300 -20 -6000 -3 -100 -100 100	.05
BLW 284 10 -300 0 -3000 -3 -100 -100 300	•28
BLW 284 10 -300 0 -3000 3 -100 -100 250	•12

TABLE LXXXVII - Continued

VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	314	20	-300	20	0	-6	-100	-100	-100	.07
BLW	314	20	-300	20	Ŏ	-3	-100	-100	-100	.29
BLW	314	20	-300	20	Ö	-3	-100	-100	100	.10
BLW	314	20	300	0	-3000	-3	-100	-100	-100	.07
BLW	314	30	-300	-60	-6000	-3	-100	-100	-100	.35
BLW	314	30	-300	0	-3000	-3	-100	-100	-100	.08
BLW	314	30	-300	0	-3000	-3	100	-100	-100	.10
BLW	314	30	-300	0	-3000	3	-100	-100	-100	•07
BLW	314	30	300	-60	-6000	-3	-150 -100	-100 -100	-100 -100	•12 •14
BLW	314	30	300 -300	-40 -60	-6000 -6000	-3 -3	-100	-100	150	.17
BLW	325 325	10 10	-300	-60	-3000	-3	-100	-100	300	.16
BLW	325	10	-300	20	-3000	-3	-100	-100	250	.21
BLW	325	10	-300	20	0	-3	-100	-100	100	.10
BLW	325	10	-300	20	ŏ	-3	-100	-100	250	.09
BLW	325	10	-300	40	-3000	-3	-100	-100	250	.26
BLW	325	10	300	0	-3000	-3	-100	-100	300	.05
BLW	325	20	-300	-80	BELOW	-3	-100	-100	100	.07
BLW	325	20	-300	0	-3000	-3	-100	-100	100	•10
BLW	325	20	300	0	-3000	-3	-100	-100	-100	.12
BLW	325	20	600	0	-3000	3	-100	-100	-100	•09
BLW	325	30	-300	20	0	-3	-150	-100	-100	.11
BLW	BLW	10	-300	-40	-6000	-3				•04
BLW	BLW	10	-300	-40 -40	-6000	-3 -3				•22 •04
BLW BLW	BLW BLW	10 20	-300 -300	-60	-6000 -6000	-3				•05
BLW	274	20	-300	-60	-6000	-3				•05
BLW	284	10	-300	-60	-6000	3				•09
BLW	284	20	-300	-40	-6000	-3				.10
BLW	294	10	-300	-40	-6000	-3				.09
BLW	304	10	-300	-40	-6000	-3				.06
BLW	314	10	-300	-40	-6000	-3				.06
BLW		BLW	-300	0	-3000	-3	-100	-100	-100	•53
BLW		RLW	-300	20	-3000	-3	-100	-100	-100	•10
BLW		10	-300	0	-3000	-3	-100	-100	-100	•42
BLW		10	-300	0	-3000	-3	-100	-100	-100	•04
BLW		BLW	-300	0	-3000	-3 -3	-100 -100	-100 -100	-100 -100	•05 •14
BLW		10 BLW	-300 -300	0	-3000 -3000	-3	-100	-100	-100	•10
BLW BLW		BLW	-300	0	-3000	-3	-100	-100	100	.15
BLW		10	-300	ő	-3000	-3	-100	-100	100	.30
BLW		BLW	-300	ŏ	-3000	-3	-100	-100	100	.04
BLW		10	-300	ŏ	-3000	-3	-100	-100	150	.16
BLW		BLW	-300	0	-3000	-3	-100	-100	150	.10
BLW		10	-300	0	-3000	-3	-100	-100	100	.14
BLW		10	-300	0	-3000	-3	-100	-100	150	• 04
BLW		20	-300	0	-3000	-3	-100	-100	-100	•10
BLW		30	-300	0	-3000	-3	-100	-100	-100	.14

TABLE LXXXVII - Continued

RPM 284 284 284	TORQ 10	R/C	=. =	TRANSIENT, GRD CONDITION, 8000 LE (CONTINUED)											
284	10		OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME						
		-300	0	0	-3	-100	-100	250	•10						
284	10	-300	20	-3000	-3	100	-100	200	.06						
	10	-300	20	0	-3	-100	-100	200	•22						
284	10	-300	20	0	-3	-100	-100	250	•20						
284	10	300	-60	-6000	-3	-100	-100	100	•08						
294	BLW	-300	0	-3000	-12	-100	-100	300	.03						
									•03						
									•41						
									.10						
				_					.04						
	_								.17						
					-3	-100		250	.43						
		-300	0	-3000	-3	-100	-100	300	.13						
294	10	-300	0	0	-3	-100	-100	250	.10						
294	10	-300	20	-3000	-3	-100	-100		.06						
294	10	-300	20	0					.18						
294	10	-300		_	_				•06						
					-				• 05						
									•09						
									•17 •40						
									.06						
									.14						
									.07						
					-3	-100	-100		.06						
		-300		-3000	-3	100	-100	250	.05						
	10	-300	20	0	-3	-100	-100		•10						
304	10	-300	20	0	-3	-100			• 05						
304	10								.21						
									• 04						
									•05						
									•16 •03						
			-						.05						
									.17						
									•09						
									.16						
		-300	Ö	-3000	-3	-100	-100	300	.16						
314	10	-300	0	-3000	-3	-10.0	-100	350	.18						
314	10	-300	0	0	-3	-100	-100	300	• 07						
314	10	-300	20	-3000			-100	250	۰07						
314	10								•05						
									•10						
			_	•					•04 •08						
									.07						
								_	.04						
									•09						
						-100	-100	150	.10						
					-3	-100	-100	-100	.16						
	20	-300	-20	-6000	-3	-100	-100	150	.05						
314	20	-300	Ō	-3000	-3	-100	-100	-100	.19						
314	20	-300	0	-3000	-3	-100	-100	150	.17						
	294 294 304 304 304 304 304 304 304 304 314 314 314 314 314 314 314 314 314 31	294 BLW 294 BLW 294 10 294 10 294 10 294 10 294 10 294 10 304 10 304 10 304 10 304 10 304 10 304 10 304 10 304 10 304 10 304 10 304 10 304 10 314 20 314 20 314 20 314 20	294 BLW -300 294 BLW -300 294 10 -300 294 10 -300 294 10 -300 294 10 -300 294 10 -300 294 10 -300 294 10 -300 294 10 -300 304 10 -300 314 10 -300 314 10 -300 314 10 -300 314 10 -300 314 10 -300 314 10 -300 314 10 -300 314 10 -300 314 10 -300 314 10 -300 314 10 -300 314 10 -300 314 10 -300 314 10 -300 314 20 -300 314 20 -300 314 20 -300 314 20 -300 314 20 -300 314 20 -300 314 20 -300 314 20 -300	294 BLW -300 20 294 BLW -300 20 294 10 -300 -60 294 10 -300 0 294 10 -300 0 294 10 -300 0 294 10 -300 0 294 10 -300 20 294 10 -300 20 294 10 -300 20 294 10 -300 20 294 10 -300 20 304 10 -300 -60 304 10 -300 0 304 10 -300 0 304 10 -300 0 304 10 -300 0 304 10 -300 0 304 10 -300 20 304 10 -300 -60 314 10 -300 -60 314 10 -300 20 314 10 -300 20 314 10 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-3 -100 -100 314 10 -300 -00 -000 -3000 -3 -100 -100 314 10 -300 -00 -00	294 BLW -300 20 -3000 -3 100 -100 250						

TABLE LXXXVII - Continued

TRAN	NSIEN	IT •	GRD C	ONDITI	ON 9	ono LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	BLW	BLW	-300	-100	BELOW	-3	-100	-100	-100	.07
BLW	BLW	BLW	-300	-20	-3000	-3	-100	-100	150	.28
BLW	BLW	BLW	-300	-20	-3000	-3	-100	-100	200	.04
BLW	BLW	BLW	-300	0	-3000	-6	-100	-100	150	•07
BLW	BLW	BLW	-300	0	-3000	-3	-100	-100	100	•22 •35
BLW	BLW	BLW	-300	0	-3000 -3000	-3 -3	-100 -100	-100 -100	150 200	.27
BLW BLW	BLW	BLW BLW	-300 -300	Ö	-3000	3	-100	-100	150	.09
BLW	BLW	BLW	-300	20	-3000	-3	-100	-100	150	.36
BLW	BLW	BLW	-300	20	-3000	-3	-100	-100	200	.07
BLW	BLW	BLW	-300	20	0	-3	-100	-100	150	.30
BLW	BLW	BLW	-300	20	Ō	-3	-100	-100	200	• 33
BLW	BLW	10	-300	-100	BELOW	-3	-100	-100	-100	.27
BLW	BLW	10	-300	-60	BELOW	-3	-100	-100	100	.06
BLW	BLW	10	-300	-60	BELOW	-3	-100	-100	150	•12
BLW	BLW	10	-300	-60	BELOW	-3	100	-100	100	•10
BLW	BLW	10	-300	-60	BELOW	-3	100	-100	150	.17
BLW	BLW	10	-300	-60 -60	-6000 -6000	-3 -3	-100 -100	-100 -100	-100 100	•12 •40
BLW	BLW	10 10	-300 -300	-60	-6000	-3	-100	-100	200	.05
BLW BLW	BLW	10	-300	-20	-3000	-3	-100	-100	200	.08
BLW	BLW	10	-300	-20	-3000	-3	-100	-100	250	.04
BLW	BLW	10	-300	ō	-3000	-3	-100	-100	150	.05
BLW	BLW	10	-300	0	-3000	-3	-100	-100	200	.14
BLW	BLW	10	-300	20	-3000	-3	-100	-100	200	•15
BLW	BLW	10	-300	20	0	-3	-100	-100	200	•06
BLW	BLW	20	-300	-60	BELOW	-3	-100	-100	150	•06
BLW	BLW	20	-300	-60	BELOW	-3	100	-100	150 250	•03 •04
BLW	274	BLW	-300 -300	-60	-3000 BELOW	-3 -3	-100 100	-100 -100	200	.04
BLW BLW	274 274	10 10	-300	-20	-3000	-3	-100	-100	250	.17
BLW	274	10	-300	20	-3000	-3	-100	-100	200	.03
BLW	274	20	-300	-60	BELOW	-3	100	-100	200	.03
BLW	284	BLW	-300	Ō	-3000	-3	-100	-100	250	•12
BLW	284	10	-300	-60	BELOW	-3	-100	-100	200	.04
BLW	284	10	-300	-60	-6000	-3	100	-100	200	•17
BLW	284	10	-300	-20	-3000	-3	-100	-100	250	•07
BLW	284	10	-300	-20	-3000	-3	-100	-100	300	•16
BLW	284	10	-300	0	-3000 -3000	-3 -3	-100 -100	-100 -100	200 250	•05 •22
8LW BLW	284 284	10 10	-300 -300	20	-3000	-3	-100	-100	250	.42
BLW	284	10	-300	20	-3000	-3	-100	-100	250	.22
BLW	284	10	300	-60	-6000	-3	-100	-100	150	.08
BLW	294	BLW	-300	0	-3000	-3	-100	-100	300	.07
BLW	294	BLW	-300	20	0	-3	-100	-100	300	•24
BLW	294	10	-300	-100	BELOW	-3	-100	-100	100	.06
BLW	294	10	-300	-100	BELOW	-3	100	-100	100	•20
BLW	294	10	-300	-60	BELOW	-3	100	-100	200 250	•07
BLW	294	10	-300	-60	BELOW -6000	-3 -3	100 -100	-100 -100	200	.07 .05
BLW	294	10 10	-300 -300	-60 -20	-3000	-3	-100	-100	250	.06
BLW	294 294	10	-300	-20	-3000	-3	-100	-100	250	.16
BLW	294	10	-300	20	-3000	-3	-100	-100	250	.14
BLW	294	10	-300	20	-3000	-3	-100	-100	300	•11
BLW	294	10	-300	20	0	-3	-100	-100	250	•06
									~	

TABLE LXXXVII - Concluded

TRAN	SIEN	Τ,	GRD (CONDITI	ON • 9	000 LB	(CONT	INUED)		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
BLW	294	20	-300	-60	BELOW	-3	100	-100	200	.10
BLW	294	30	-300	-60	BELOW	-3	100	-100	250	.14
BLW	304	10	-300	-60	BELOW	-3	100	-100	250	-14
BLW	304	10	-300	-60	-6000	-3	-100	-100	200	• 05
BLW	304	10	-300	-20	-3000	-3	-100	-100	300	•15
BLW	304	10	-300	0	-3000	-3	-100	-100	250	• 29
BLW BLW	304 304	10 10	-300 -300	20 20	-3000 -3000	-3 -3	-100 -100	-100 -100	250 300	.08
BLW	304	10	-300	20	-3000	-3	-100	-100	250	•11 •14
BLW	304	10	-300	20	ŏ	-3	-100	-100	300	.15
BLW	304	10	300	-60	-6000	-3	-100	-100	150	.08
BLW	304	20	-300	-60	BELOW	-3	-100	-100	200	.08
BLW	314	10	-300	-100	BELOW	-3	100	-100	100	.06
BLW	314	10	-300	-60	BELOW	-3	100	-100	250	.04
BLW	314	10	-300	-20	-3000	-3	-100	-100	300	.12
BLW	314	10	-300	0	-3000	-3	-100	-100	200	•06
BLW	314	10	-300	0	-3000	-3	-100	-100	250	•06
BLW	314	10	- 300	0	-3000 -3000	-3	-100	-100	300	•09
BLW	314 314	10 10	-300 -300	20 20	-3000	-3 -3	-100 -100	-100 -100	300 300	-10
BLW	314	20	-300	-60	BELOW	-3	-100	-100	150	•15 •05
BLW	314	20	-300	-60	BELOW	-3	-100	-100	250	.08
BLW	314	20	-300	-60	BELOW	-3	100	-100	250	.22
BLW	314	20	-300	ō	-3000	-3	-100	-100	-100	.07
BLW	314	20	-300	20	-3000	-3	-100	-100	100	•09
BLW	314	20	-300	20	0	-3	-100	-100	-100	•05
BL.W	314	20	300	0	-3000	-3	-100	-100	-100	.08
BLW	314	30	-300	0	-3000	-3	-100	-100	-100	• 09
BLW	314	30	-300	20	-3000	-3	-100	-100	-100	•10
BLW PLW	314 314	30 40	-300 -300	20	0	-3	-100	-100	-100	•07
B.W	325	10	-300	-60 -100	BELOW	-3 -3	-100 100	-100 -100	-100 150	•09
BL	325	10	-300	-60	-6000	-3	-100	-100	250	•11 •16
BLW	325	10	-300	ő	-3000	-3	-100	-100	300	•07
BLW	325	10	300	Ö	-3000	-3	-100	-100	200	•07
BLW	325	20	-300	-60	BELOW	-3	-100	-100	250	.19
BLW	325	20	-300	-60	-6000	-3	100	-100	250	•03
BLW	325	3(300	-80	BELOW	-3	-100	-100	-100	.18
TRAN	ISIEN	I.	TRANS	ITION.	70	000 LB				
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	TIME
60	314	BLW	-1200	20	0	-3	-100	-100	250	.08
60	325	10	-1200	20	0	-3	-100	-100	200	-12
70	304	BLW	-1200	20	0	-3	-100	-100	300	.08
70	314	BLW	-1800	-20	-3000	-3	-100	-100	200	•09
70	314	BLW	-1800	-20	-3000	-3	100	-100	250	•09
70 70	314 314	BLW 20	-1800 -1800	-20 -20	-3000 -3000	3	-100 100	-100	400	•03
75	314	30	BELOW	-20	-3000	-3	-100	-100 -100	100 -100	•03 •14
80	314	10	-600	20	ŏ	-3	-100	-100	200	.23
80	325	BLW	BELOW	ō	ŏ	-3	-100	-100	400	.07
85	325	20	-600	20	ŏ	-3	-100	-100	100	.23

TABLE LXXXVIII. OCCURRENCES FOR MISSION SEGMENT VARIATION DISTRIBUTED IN RANGES OF TEN PARAMETERS BY MISSION SEGMENT AND GROSS WEIGHT

MIS	SSION	SEG	MENT VA	RIATIO	DN. AS	CENT	5000 L	В		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	OCCUR
90	314	30	-300	-20	-3000	-3	100	-100	-100	1
110	314	30	-300	-20	-3000	-3	-100	-100	-100	1
110	325	30	-300	-20	-3000	-3	100	-100	-100	1
1										
MIS	SSION	SEGI	MENT VA	RIATI	ON. AS	CENT	7000 L	В		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC	CY-LNG	CY-LAT	COI.L	nccur
BLW	314	30	-300	-60	-6000	-3	-100	-100	-100	ı
BLW	325	30	-300	20	-3000	-3	-100	-100	-100	i
60	314	30	-300	-60	-6000	-3	-100	-100	-100	ī
75	325	20	-300	-20	-3000	-3	-100	100	-100	ī
80	325	30	-300	0	-3000	-3	-100	100	-100	i
85	325	20	-300	-20	-3000	-3	100	100	-100	ĩ
85	325	30	-300	-20	0	-3	-100	100	-100	i
90	314	30	-300	-40	-3000	-3	-100	100	-100	i
90	325	40	-300	-80	BELOW	-3	100	-100	-100	i
95	314	40	-300	-40	-3000	-3	-100	-100	-100	ī
95	325	30	-300	-20	0	-3	-100	-100	-100	ī
100	314	30	-300	-40	-3000	-3				i
100	314	40	-300	-80	-3000	-3				i
100	314	40	-300	-60	-6000	-3				i
100	314	40	-300	-40	-3000	-3				i
105	314	30	-300	-60	-6000	-3				
iió	314	30	-300	-80	-3000	-3				i
MIS	SION	SEGM	ENT VAR	RIATIO	N. AS	CENT	8000 L	В		
VEL	RPM	TORQ	R/C	QAT	ALT	A/S ACC	CY-LNG	CY-LAT	COLL	OCCUR
60	314	30	-300	-60	-6000	-3	-100	-100	-100	1
90	314	30	-300	-40	-6000	-3	150	-100	-100	1
100	314	30	-300	-40	-3000	-3	-100	100	-100	i
105	314	40	-300	-60	BELOW	-3	-100	100	-100	1
105	314	40	-300	-40	-6000	-3	150	-100	-100	2
				•••		•				_
MIS	SION	SEGM	ENT VAR	RIATIO	N. AS	CENT	9000 L	.8		
VEL	RPM	TORQ	R/C	OAT	ALT	A/S ACC		CY-LAT	COLL	OCCUR
70	314	20	-300	20	0	-3	100	-100	-100	1
75	325	30	-300	-80	BELOW	-3	-100	-100	-100	1
80	314	30	-300	-40	-6000	-3	-100	-100	-100	1
80	325	30	-300	-80	-6000	-3	-100	-100	-100	1
85	314	20	-300	0	0	-3	100	-100	-100	1
90	325	20	-300	20	0	-3	100	-100	100	1
90	325	30	-300	-80	-6000	-3	-100	-100	-100	1
90	325	40	-300	-80	BELOW	-3	100	-100	-100	1
90	325	40	-300	-80	-6000	-3	-100	-100	-100	1
90	325	40	-300	-80	-6000	-3	100	-100	-100	1
90	314	30	-300	-60	-6000	-3				1
85		30	-300	20	0	-3	100	100	-100	1
90		30	-300	20	0	-3	100	150	-150	1
95		30	-300	20	0	-3	100	100	-150	1

TABLE LXXXVIII - Continued

MIS	SSION	SEGM	IENT VA	RIATIO	ON. LE	VEL	FL	IGHT	6000 L	.в	
VEL	RPM	TORQ	R/C	OAT	ALT	A/5	ACC	CY-LNG	CY-LAT	COLL	OCCUR
80	314	20	-300	-20	-3000		-3	-200	-100	-100	1
85	325	20	-300	-20	-3000		-3	-250	-100	-100	i
95	314	30	-300	-20	0		-3	-100	-100	-100	i
95	325	30	-300	-20	-3000		-3	-100	-100	-100	ī
95	334	30	-300	-20	-6000		-3	100	-100	-100	1
MI	SSION	N SEGI	MENT V	ARIATI	ON, LE	EVEL	FL	IGHT	7000	LB	
VEL	RPM	TORQ	R/C	OAT	ALT	A/5	ACC	CY-LNG	CY-LAT	COLL	OCCUR
40	314	20	-300	-60	-6000		-3	-100	-100	÷100	2
40	314	20	-300	0	3000		-3	-100	-100	-100	ì
60	314	30	-300	ŏ	3000		-3	-100	-100	- 100	i
80	314	20	-300	Ŏ	0		-3	-100	100	-100	i
80	325	20	-300	-20	-3000		-3	-100	100	-100	ī
85	314	30	-300	-40	-3000		-3	-100	-100	-100	2
85	314	30	-300	-40	-3000		-3	-100	100	-100	1
85	325	20	-300	-20	-3000		-3	-100	100	-100	1
85	325	20	-300	20	0		-3	150	-100	100	1
85	325	30	-300	-20	-3000		-3	-100	-100	-100	1
85	325	40	-300	-20	-3000		-3	100	-100	-150	1
90	314	20	-300	-20	-3000		-3	100	100	-100	1
90	325	30	-300	-80	-6000		-3	-100	-100	-100	1 2
90	325	30	-300 -300	-20 -80	-3000		-3 -3	-100	-100	-100	1
90 95	325 314	40 30	-300	-60	BELOW -3000		-3	100 -100	-100 -100	-100 -200	i
95	314	30	-300	0	-3000		-3	100	-100	-100	i
95	314	30	-300	ŏ	3000		-3	-100	-100	-100	î
95	314	40	-300	-60	-6000		-3	-100	-100	-100	i
95	314	40	-300	-40	-3000		-3	-100	-100	-100	i
95	325	40	-300	-100	BELOW		-3	100	-100	-100	ī
100	314	30	-300	-60	-3000		-3	-100	100	-100	ī
100	314	30	-300	0	-3000		-3	100	-100	-100	ī
100	314	40	-300	-80	BELOW		-3	100	-100	-100	1
100	325	30	-300	-20	0		-3	-100	100	-100	1
105	314	40	-300	-60	-6000		-3	100	-100	-100	2
105	314	40	-300	-40	-3000		-3	100	-100	-100	1
105	325	30	-300	-20	-3000		-3	100	100	-100	1
90	314	30	-300	-40	-6000		-3				1
95	314	30	-300	-40	-3000		-3				1
105	314	30	-300	-60	-6000		-3				1
105	314 314	30 30	-300 -300	-80 -80	-3000		-3 -3				1
105	314	30	-300	-80	-3000 -6000		-3				1
110	314	30 30	-300	-40	-6000		-3				
					_						1
	-47	,,,									_
115	314	30	-300	-60	-6000		-3				

TABLE LXXXVIII - Continued

RPM 325 314 314 314 314 314 325 325 325 325	TORQ 20 20 20 20 20 20 20 20 20 30 40 20 20	R/C -300 -300 -300 -300 -300 -300 -300 -30	OAT 0 20 0 0 20 20 20 0 -60 0	ALT 0 0 0 0 0 0 -3000	A/5	ACC -3 -3 -3 -3	CY-LNG -100 100 100 -100	CY-LAT 100 -100 -100 -100	COLL -100 -100 -100	OCCUF 1 1 1
325 325 314 314 314 314 314 325 325 325 325	20 20 20 20 20 20 30 40 20 20	-300 -300 -300 -300 -300 -300 -300 -300	0 20 0 0 20 20 0 -60	0 0 0 0 0 0		-3 -3 -3 -3	-100 100 100 -100	100 -100 -100 -100	-100 -100 -100 -100	1 1 1
325 314 314 314 314 314 314 325 325 325	20 20 20 20 20 30 40 20 20	-300 -300 -300 -300 -300 -300 -300 -300	20 0 0 20 20 0 -60	0 0 0 0 0 -3000		-3 -3 -3	100 100 -100	-100 -100 -100	-100 -100 -100	1
314 314 314 314 314 314 325 325 325 325	20 20 20 20 30 40 20 20	-300 -300 -300 -300 -300 -300 -300 -300	0 20 20 0 -60	0 0 0 0 0 -3000		-3 -3 -3	100 -100	-100 -100	-100 -100	1
314 314 314 314 314 325 325 325 325	20 20 30 40 20 20 30	-300 -300 -300 -300 -300 -300 -300	20 20 0 -60	0 0 0 -3000		-3 -3	-100	-100	-100	
314 314 314 314 325 325 325 325	20 20 30 40 20 20	-300 -300 -300 -300 -300 -300	20 20 0 -60	0 0 -3000		-3				1
314 314 314 325 325 325 325	20 30 40 20 20 30	-300 -300 -300 -300 -300	20 0 -60 0	-3000		-	_100			
314 314 325 325 325 325	30 40 20 20 30	-300 -300 -300 -300	-60 0	-3000				-100	-100	1
314 325 325 325 325	40 20 20 30	-300 -300 -300	-60 0			-3	100	-100	-100	1
325 325 325 325 325	20 20 30	-300 -300	0	- 5000		-3 -3	150 -100	-100 100	-100 -100	1
325 325 325	20 30	-300	-	0		-3	100	-100	-100	1 1
325 325	30		40	ŏ		-3	-100	-100	-100	ì
325		-300	-80	-6000		-3	-100	-100	-100	i
	30	-300	-80	-6000		-3	-100	-100	-100	i
	40	-300	-80	-3000		-3	-100	-100	-150	2
314	30	-300	-80	-6000		-3	-100	-100	-100	1
314	30	-300	-60	-6000		-3	-100	-100	-100	1
314	40	-300	-80	-6000		-3	100	-100	-100	1
325	40	-300	-80	-6000			100		-100	1
314	40									1
314	-		-							1
									_	1
										1
	-								-	1
				-						i
	-									i
							100	-100	-100	i
314			-40							1
314	30	-300	-40	-6000						1
314	30	-300	-60	-6000		-3				1
314	30	-300	-60	-6000						1
	30		0	0						1
			-						-	1
										1
				_						1
										1
				_					-100	•
ON	SEGME	ENT VAR	IATIO	N. LEV	/EL F	FLI	GHT 9	000 LB		
RPM	TORQ	R/C	OAT	ALT	A/S	ACC	-	CY-LAT	COLL	OCCUR
125	20	-300	-20	-3000		_	100	-100	-100	1
125	20	-300	0	-3000	•	-3	100	-100	-100	1
114	20	-300	0	-3000			-100	-100	-100	j
114										1
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	314 325 314 314 314 3125 325 314 314 314 314 314 314 314 314 314	014 40 014 40 014 40 015 30 016 40 017 40 018 40 01	314 40 -300 325 40 -300 314 40 -300 314 40 -300 314 40 -300 315 30 -300 325 40 -300 325 40 -300 325 40 -300 325 40 -300 325 40 -300 325 40 -300 326 40 -300 327 40 -300 328 40 -300 329 40 -300 314 30 -300 314 30 -300 30 -300 20 -300	314 40 -300 -80 325 40 -300 -80 314 40 -300 -80 314 40 -300 -80 314 40 -300 -80 314 40 -300 -80 314 40 -300 -60 325 30 -300 -100 325 40 -300 -60 325 40 -300 -60 314 30 -300 -60 314 30 -300 -60 314 30 -300 -60 314 30 -300 -60 314 30 -300 -60 314 30 -300 -60 314 30 -300 -60 314 30 -300 -60 30 -300 20 20 -300 0 20 -300 20 20 -300 0 20 -300 20 20 -300 0 20 -300 20 20 -300 0 20 -300 20 21 -300 0 22 -300 20 25 30 -300 -20 314 20 -300 0 325 30 -300 -20 34 20 -300 0 35 30 -300 -20 36 30 -300 -20 37 300 -20 38 30 -300 -20 39 300 -20	314	314 40 -300 -80 -6000 325 40 -300 -80 -6000 314 40 -300 -80 -6000 314 40 -300 -80 -6000 314 40 -300 -80 -6000 325 30 -300 -20 -3000 325 40 -300 -60 -6000 325 40 -300 -60 0 325 40 -300 -60 0 325 40 -300 -60 -6000 314 30 -300 -60 -6000 314 30 -300 -60 -6000 314 30 -300 -60 -6000 314 30 -300 -60 -6000 314 30 -300 -60 -6000 314 30 -300 0 0 0 30 -300 0 0 20 -300 0 0 20 -300 0 0 20 -300 20 0 20 -300 20 0 20 -300 20 0 20 -300 20 0 20 -300 20 0 20 -300 0 0 0 20 -300 0 0 0 20 -300 0 0 0 20 -300 0 0 0 20 -300 0 0 0 20 -300 0 0 0 20 -300 0 0 0 20 -300 0 0 0 20 -300 0 0 0 20 -300 0 0 0 20 -300 0 0 0 20 -300 0 0 0 25 20 -300 0 0 -3000 14 20 -300 0 -3000 14 20 -300 0 -3000 15 30 -300 -20 -3000 16 20 -300 0 0 -3000 17 20 -300 0 0 -3000 18 20 -300 0 0 -3000 19 25 30 -300 -80 BELOW 19 25 30 -300 -80 BELOW 19 25 30 -300 -80 BELOW 19 25 30 -300 -80 BELOW 19 25 30 -300 -80 BELOW 19 25 30 -300 -80 BELOW 19 25 30 -300 -80 BELOW 19 25 30 -300 -80 BELOW 19 25 30 -300 -80 BELOW 19 25 30 -300 -80 BELOW 19 25 30 -300 -80 BELOW 19 25 30 -300 -80 BELOW 19 25 30 -300 -80 BELOW 10 25 30 -300 -80 BELOW	314	10	14	14

TABLE LXXXVIII - Continued MISSION SEGMENT VARIATION, LEVEL FLIGHT 9000 LB (CONTINUED) OCCUR VEL RPM TORO R/C DAT ALT A/5 ACC CY-LNG CY-LAT COLL -6000 -100 100 -100 325 -300 -60 -3 80 40 -6000 -300 -3 150 -100 -100 -40 83 314 30 1 -100 90 -300 -40 -6000 -3 150 -100 314 30 -3000 -100 -100 -100 90 30 -300 -20 -3 314 -3000 100 -100 -100 -300 -3 -20 90 314 40 -100 105 314 40 -300 -60 BELOW -3 -100 100 105 40 -300 -40 -6000 -3 150 -100 -100 3 314 -300 -6000 -3 150 -100 -100 -40 40 110 314 1 115 314 40 -300 -60 BELOW -3 -100 100 -100 1 6000 LB MISSION SEGMENT VARIATION, DESCENT **OCCUR** COLL ALT A/S ACC CY-LNG CY-LAT RPM VEL TORQ R/C DAT 314 20 -300 1 -20 -100 -3000 -3 -250 -100 MISSION SEGMENT VARIATION. DESCENT 7000 LB VEL RPM TORQ R/C DAT ALT A/S ACC CY-LNG CY-LAT COLL OCCUR -100 -100 -300 -20 0 -100 40 325 10 -3 70 325 10 -300 20 0 -3 -100 -100 200 1 20 314 -300 -20 0 -200 -100 -100 ı 80 -3 90 314 30 -300 -60 -3000 -3 -100 -100 -100 90 325 -300 ì 20 -20 0 -3 -100 100 -100 75 314 20 -300 -60 -6000 -100 100 -100 95 314 20 -300 -3 100 -100 -100 95 -300 -20 -3000 325 20 -3 -100 -100 -100 1 -100 30 -300 -3000 -3 -100 100 314 -40 -100 1 100 314 30 -300 -40 0 -3 -100 -100 -100 325 -300 -3000 -100 105 20 0 -3 100 100 -20 110 314 30 -300 0 -3 -100 100. -150 1 -6000 110 314 40 -300 -60 -3 100 -100 -100 100 314 30 -300 -60 -3000 -3 110 314 30 -300 -40 -3000 -3 30 30 -300 -300 -20 110 314 -3 -6000 314 115 -3 -60 30 -300 -80 -6000 -3 MISSION SEGMENT VARIATION. DESCENT 8000 LB VEL **RPM** TORQ R/C DAT ALT A/S ACC CY-LNG CY-LAT COLL **OCCUR** 70 314 20 -300 0 0 100 -3 -100 -100 75 -300 314 10 0 0 -3 -100 -100 -100 75 314 10 -300 0 0 -3 100 -100 -100 1 75 314 20 -300 -20 -3000 100 -3 -100 -100 75 314 20 -300 0 -3000 -3 -100 -100 -100 75 314 20 -300 0 -3000 100 -100 -100 75 314 20 -300 0 -3000 -3 150 -100 -100 75 325 -300 Λ 100 -100 10 n -3 100 1 -3000 80 325 30 -300 -80 -3 -100 -100 -100 90 314 -300 -100 20 0 0 -3 -100 -100 1 95 314 -300 -80 -6000 30 -100 -100 -100

i

i

TABLE LXXXVIII - Concluded 8000 LB (CONTINUED) MISSION SEGMENT VARIATION. DESCENT OCCUR COLL ALT A/S ACC CY-LNG CY-LAT VEL RPM TORQ R/C DAT 100 -100 -300 -100 -100 BELOW -3 95 325 40 -100 -3 -100 -100 1 100 314 30 -300 -60 -6000 105 -300 -3 -60 -6000 100 -100 -100 30 314 -300 -300 -60 -6000 30 30 -40 -3000 -3 -300 100 100 -100 2 20 -3 90 20 0 -100 1 95 20 -300 0 0 -3 100 100 -100 105 20 0 100 100 1 20 -300 MISSION SEGMENT VARIATION. DESCENT 9000 LB OCCUR ALT A/S ACC CY-LNG CY-LAT COLL VEL RPM TORQ R/C DAT -100 1 -100 -100 ~300 -20 -3000 40 325 20 -300 -3000 -3 -100 -100 100 1 0 40 325 20 -3 150 -100 -100 60 314 10 -300 0 O 1 -100 -100 20 -300 0 -3000 -3 100 60 314 -3000 -20 -3 100 -100 -100 ì 60 325 20 -300 -3 150 -100 -100 -3000 75 314 20 -300 0 1 -100 100 100 80 314 20 -300 20 0 -3 -6000 -3 150 -100 -100 1 30 -300 -40 80 314 150 -100 -100 0 -3000 80 314 30 -300

TABLE LXXXIX. $n_{\mathbf{X}}$ PEAKS VERSUS VARIOUS PARAMETERS BY FLIGHT CONDITION AND MISSION SEGMENT

FLIGHT CONDITION STEADY STATE COLLECTIVE PULLUP COLLECTIVE PULLUP FLARE	MISSION SEGMENT HOVER LEVEL FLIGHT DESCENT DESCENT	NX 0.10 0.10 0.10 0.10	VEL BLW BLW BLW BLW	ALT -3000 0 -3000 -3000	WGT 8000 7000 9000 9000	NY -0.10 -0.10 -0.10 -0.10	NZ 0.9 0.9 0.9
LEFT TURN	HOVER	0.10	BLW	-3000	7000	-0.10	0.9

TABLE XC. $n_{\mbox{\scriptsize y}}$ PEAKS VERSUS VARIOUS PARAMETERS BY FLIGHT CONDITION AND MISSION SEGMENT

1						•		
l	FLIGHT	MISSION						
1	CONDITION	SEGMENT	NY	A/S	ALT	WGT	NX	NZ
1	STEADY STATE	ASCENT	-0.10	40	-6000	8000	-0.10	0.9
Į	STEADY STATE	ASCENT	-0.10	70	-3000	8000	-0.10	0.8
	STEADY STATE	ASCENT	-0.10	70	0	7000	-0.10	0.9
i		LEVEL FLIGHT	-0.10		BELOW	8000	-0.10	0.9
1		LEVEL FLIGHT	-0.10	80	-6000	8000	-0.10	1.1
1	STEADY STATE	LEVEL FLIGHT	-0.10	85	BELOW	8000	-0.10	1.2
		LEVEL FLIGHT	-C. 10	85	0	7000	-0.10	0.9
		LEVEL FLIGHT	-0.15	90	-6000	8000	-0.10	0.9
	STEADY STATE	LEVEL FLIGHT	-0.10	90	-6000	8000	-0.10	1.1
ĺ		LEVEL FLIGHT	-0.15	90	-6000	8000	-0.10	0.9
		LEVEL FLIGHT	-0.10	95	-3000	7000	-0.10	0.9
	STEADY STATE	LEVEL FLIGHT	0.10	95	-3000	7000	-0.10	0.9
	STEADY STATE	LEVEL FLIGHT	0.10	95	-3000	7000	-0.10	0.9
	STEADY STATE	LEVEL FLIGHT	-0.10	95	0	7000	-0.10	0.9
	STEADY STATE	DESCENT	0.10	80	-6000	8000	-0.10	0.9
	STEADY STATE	DESCENT	-0.10	85	-6000	8000	-0.10	0.7
1	STEADY STATE	DESCENT	0.10	85	-3000	7000	-0.10	0.9
	STEADY STATE	DESCENT	-0.10	85	-3000	8000	-0.10	1.2
ı	STEADY STATE	DESCENT	-0.15	90	-6000	8000	-0.10	1.2
i	STEADY STATE	DESCENT	-0.10	90	-6000	8000	-0.10	0.9
ĺ	STEADY STATE	DESCENT	-0.10	95	-6000	8000	-0.10	1 • 1
	RIGHT TURN	LEVEL FLIGHT	-0.10	40	-6000	8000	-0.10	0.9
i	LATERAL REVERSAL		0.10	BLW	-3000	8000	-0.10	0.8

TABLE XCI. GUST n_z PEAKS VERSUS VARIOUS PARAMETERS BY FLIGHT CONDITION AND MISSION SEGMENT

				······································					
							_		
	NZ	INITIA	1104	OF ASC	NT.	ASCEN	JT.		
NZ 0.6	DURATION 02	RPM 314	VEL 40	ALT -3000	WGT 7000	MU 0.10	CT/S 0.04	-0.10	-0.10
			RIGHT	TURM,	ASCE	NT			
NZ 1•2	NZ DURATION •01	RPM 314	VEL 95	ALT -3000	WGT 7000	MU 0•20	CT/S 0.04	NX -0.10	-0.10
		RIG	HT TU	RM. LF	VFL F	L.I.GHT			
NZ	NZ I-JRATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
1.2	•01 •01	314 314	90 90	-3000 -3000	7000 7000	0.15 0.15	0.04	-0.10 -0.10	-0.10 -0.10
0.7	•01 •00	314 314	95 110	-3000 -3000	7000 7000	0.20	0.04	-0.10 -0.10	-0.10 -0.10
0.6	•02 •01	314 324	110	-3000 -3000	7000 7000	0.20	0.04	-0.10 -0.10	-0.10 -0.10
0.7	.01	324	90	-3000	7000	0.15	0.04	-0.10	-0.10
						-			
	ΝZ	F	LIGHT	TURN.	PESCE	MI			
NZ 0.7	DURATION •01	RPM 314	VEL 80	ALT O	WGT 7000	MU 0 • 15	CT/S 0.04	NX -0.10	NY -0.10
1.3	•01	314	80	0	7000	0.15	0.04	-0.10	-0.10
1.2	•01 •01	314 314	85 85	-3000 -3000	7000 7000	0.15 0.15	0.04	-0.10 -0.10	-0.10 -0.10
1.2	•01	314	85	-3000	7000	0.15	0.04	-0.10	-0.10
		COLLECT	IVE P	USHOVER	• L	EVEL	FL I GH1	•	
NZ	NZ DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
1.2	•01 •00	314	95 95	-3000 -3000	6000	0.20	0.04	-0.10 -0.10	-0.10 -0.10
		CYC	LIC F	PULLUP.	DES	CENT			
NZ	NZ DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
1.2	•01	324	60	BELOW	9000	0.10	0.04	-0.10	-0.10
l									

TABLE XCI - Continued

			STEADY	STATE.	ASC	ENT			
	NZ	D 704					or / c		
ΝZ	DURATION	RPM	VEL 75	ALT	WGT	MU	CT/S	- NX	NY
1.2	•01	314 314	85	-3000 -3000	7000 7000	0.15	0.04	-0.10	-0.10
1.2	.01	314	90	-6000	8000	0.15 0.15	0.04	-0.10	-0.10
0.6	•01		90	-3000	7000	0.15	0.04	-0.10 -0.10	-0.10
0.7 0.8	•01	314	90	-3000	6000	0.15	0.04	-0.10	-0.10 -0.10
1.2	•00	314	90	-3000	7000	0.15	0.04	-0.10	-0.10
1.2	•01	314	90	-3000	7000	0.15	0.04	-0.10	-0.10
0.7	•01	314	90	-3000	7000	0.15	0.04	-0.10	-0.10
1.2	•01	314	90	0	7000	0.15	0.04	-0.10	-0.10
0.7	•01	314	95	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	95	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•01	314	95	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•01	314	100	-6000	7000	0.20	0.04	-0.10	-0.10
1.3	•01	314	100	-6000	7000	0.20	0.04	-0.10	-0.10
0.7	•01	314	100	-3000	6000	0.20	0.04	-0.10	-0.10
0.7	•01	314	100	-3000	6000	0.20	0.04	-0.10	-0.10
1.3	•01	314	100	-3000	7000	0.20	0.04	-0.10	-0.10
1.3	•02	314	100	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•01	314	100	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•00	314	100	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	100	0	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•61	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•00	314	110 110	-3000 -3000	6000 7000	0.20	0.04	-0.10	-0.10
1.2	•01	314 314	110	-3000	7000	0.20 0.20	0.04	-0.10	-0.10
0.7	•01	314	110	-3000	7000	0.20	0.04	-0.10 -0.10	-0.10 -0.10
1.3	•01 •01	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.3	•02	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.3	•03	314	115	-3000	6000	0.20	0.04	-0.10	-0.10
1.2	•02	314	115	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	115	-3000	7000	0.20	0.04	-0.10	-0.10
0.4	•01	314	115	-3000	7000	0.20	0.04	-0.10	-0.10
1.3	•02	314	115	-3000	7000	0.20	0.04	-0.10	-0.10
0.6	•01	314	115	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	115	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•01	324	60	0	8000	0.10	0.06	-0.10	-0.10
0.7	•03	324	60	0	8000	0.10	0.06	-0.10	-0.10
0.7	•01	324	70	0	8000	0.10	0.06	-0.10	-0.10
0.8	.01	324	70	0	8000	0.10	0.06	-0.10	-0.10
0.6	•01	324	75	-3000	7000	0.15	0.04	-0.10	-0.10
1.2	•01	324		-3000	7000	0.15	0.04	-0.10	-0.10
0.7	• 02	324	75	-3000	7000	0.15	0.04	-0.10	-0.10
0.7	•02	324		-3000	7000	0.15	0.04	-0.10	-0.10
1.2	•01	324		-3000	7000 7000	0.15 0.15	0.04	-0.10	-0.10
0.6	•01	324		-3000 -3000	7000		0.04	-0.10	-0.10
0.6	•02	324 324	85 90	-3000	7000	0.15 0.15	0.04	-0.10 -0.10	-0.10 -0.10
1.2	•01	324		-3000	7000	0.15	0.04	-0.10	-0.10
0.7	•01	334	95	-3000	8000	0.15	0.04	-0.10	-0.10
0.7	•00	737	7,	U	5000	0.10	J • J •	-0110	-0.10

TABLE XCI - Continued

									i
			5.T.E.A.D.V	C.T.A.T.E	LEVE	L FLIC	SHT		
			STEADY	STATE.	LIVE	L PLIC	3171		
	NZ	2.214		4.5	wom	101	Cm / C	***	\n\'
NZ	DURATION	RPM 314	VEL 70	ALT -3000	WGT 6000	MU 0.15	CT/S 0.04	NX -0.10	-0.10
1.2	• 02	314	75	-3000	6000	0.15	0.04	-0.10	-0.10
1.2	•02	314	85	-3000	6000	0.15	0.04	-0.10	-0.10
0.7	-01	314	90	-6000	7000	0.15	0.04	-0.10	-0.10
1.2	•61	314	90	-3000	6000	0.15	0.04	-0.10	-0.10
1.3	•03	314	90	-3000	6000	0.15	0.04	-0.10	-0.10
1.2	•01	314	90	-3000	6000	0.15	0.04	-0.10	-0.10
1.2	•01	314	90	-3000	6000	0.15	0.04	-0.10	-0.10
1.2	•01	314	90	-3000	6000	0.15	0.04	-0.10	-0.10
1.2	•01	314	90	-3000	6000	0.20	0.04	-0.10	-0.10
0.7	•01	314	90	-3000	6000	0.20	0.04	-0.10	-0.10
1.2	•01	314	90	-3000	6000	0.20	0.04	-0.10	-0.10
0.7	•01	314	90	-3000	6000	0.20	0.04	-0.10	-0.10
1.3	•01 •01	314	90	-3000	7000	0.15	0.04	-0.10	-0.10
	•01	314	90	-3000	7000	0.15	0.04	-0.10	-0.10
1.3	•00	314	95	-3000	6000	0.20	0.04	-0.10	-0.10
1.2	•01	314	95	-3000	6000	0.20	0.04	-0.10	-0.10
1.2	.01	314	95	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•00	314	95	-3000	7000	0.20	0.04	-0.10	-0.10
0.6	•01	314	95	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	95	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	.01	314	100	-3000	6000	0.20	0.04	-0.10	-0.10
0.7	.01	314	100	-3000	6000	0.20	0.04	-0.10	-0.10
1.2	•03	314	100	-3000	6000	0.20	0.04	-0.10	-0.10
1.2	.01	314	100	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•00	314	100	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•01	314	100	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•00	314	100	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	100	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•00	314	100	-3000	7000	0.20	0.04	-0.10	-0.10
0.6	•02	314	100	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	100	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	100	-3000	7000	0.20 0.20	0.04	-0.10	-0.10
1.2	•01	314 314	100 105	-3000 -6000	7000 7000	0.20	0.04	-0.10 -0.10	-0.10 -0.10
1.2	•00		105	-6000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314 314	105	-6000	7000	0.20	0.04	-0.10	-0.10
0.7	•01	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.3	•02	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•00	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•01	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.3	•02 •01	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	105	-3000	7000	0.20	0.04	-0.10	-0,10
1.2	•01	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•00	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•00	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
- • •	-								

TABLE XCI - Continued

	51	EADY	STATE.	LEVEL	FLIGH	T ((NITHC	UFD)	
	NZ								
NZ	DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
1.2	•01	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
0.6	•01	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.3	•01	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•00	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.3	.02	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•02	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.3	•01	314	110	-3000	8000	0.20	0.06	-0.10	-0.10
1.2	•00	314	110	0	6000	0.20	0.04	-0.10	-0.10
1.2	•01	314	115	-6000	7000	0.25	0.04	-0.10	-0.10
1.3	•01	314	115	-6000	8000	0.20	0.04	-0.10	-0.10
1.2	•01	314	115	-3000	7000	0.20	0.04	-0.1C	-0.10
1.2	•01	314	115	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	.01	314	115	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•00	314	115	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	115	-3000	7000	0.25	0.04	-0.10	-0.10
1.2	•01	314	115	-3000	7000	0.25	0.04	-0.10	-0.10
0.7	.01	314	120	-6000	7000	0.25	0.04	-0.10	-0.10
1.2	•01	314	120	-6000	7000	0.25	0.04	-0.10	-0.10
1.3	•02	314	125	-3000	7000	0.25	0.04	-0.10	-0.10
1.2	•02	514	125	0	6000	0.25	0.04	-0.10	-0.10
1.2	•01	324	75	-6000	8000	0.15	0.04	-0.10	-0.10
0.7	•01	324	80	0	7000	0.15	0.04	-0.10	-0.10
0.8	•01	324	85	BELOW	8000	0.15	0.04	-0.10	-0.10
1.2	.03	324	85	BELOW	8000	0.15	0.04	-0.10	-0.10
0.6	•01	324	85	-3000	7000	0.15	0.04	-0.10	-0.10
1.3	•01	324	85	-3000	7000	0.15	0.04	-0.10	-0.10
0.7	•00	324	85	-3000	7000	0.15	0.04	-0.10	-0.10
1.2	•00	324	90	-6000	8000	0.15	0.04	-0.10	-0.10
0.7	•00	324	90	-3000	7000	0.15	0.04	-0.10	-0.10
0.7	•00	324	90	-3000	7000	0.15	0.04	-0.10	-0.10
1.3	•01	324	90	-3000	7000	0.15	0.04	-0.10	-0.10
1.3	•02	324	95	-6000	8000	0.15	0.04	-0.10	-0.10
1.2	•01	324	95	-6000	8000	0.15	0.04	-0.10	-0.10
0.7	•01	324	95	-6000	8000	0.15	0.04	-0.10	-0.10
0.8	•00	324	95	-3000	7000	0.15	0.04	-0.10	-0.10
1.2	•01	324	95	-3000	7000	0.15	0.04	-0.10	-0.10
0.7	•01	324	95	-3000	7000	0.15	0.04	-0.10	-0.10
0.7	•01	324	95	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	324	95	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•02	324	95	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•01	324	100	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	324	100	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	324	100	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	324	100	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•00	324	100	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	324	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	324	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	324	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	324	105	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	.00	324	105	-3000	7000	0.20	0.04	-0.10	-0.10

TABLE XCI - Concluded

				,					
		STEADY	STATE	LEVE	EL TOU	T ()	NITNC	HEDI	
		STIADI	31/411.3	L. L. VIII		' ''	CONTIN	ULUI	
	NZ								
NZ	DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
i • 2	•01	324	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•00	324	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•02	324	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•00	324	110	-3000	7000	0.20	0.04	-0.10	-0.10
0.8	•00	324	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	324	110	-3000	7000	0.20	0.04	-0.10	-0.10
			STEAD	Y STAT	F. DES	SCENT			
	NΖ							200	
NΖ	DURATION		VEL	ALT	WGT	MU	CT/S	NX	NY
1.4	•02	314	40	-3000	7000	0.10	0.04	-0.10	-0.10
1.3	•02	314	40	-3000	7000	0.10	0.04	-0.10	-0.10
1.2	•02	314	60	-3000	7000	0.10	0.04	-0.10	-0.10
1.3	•02	314	70	-3000	7000	0.10	0.04	-0.10	-0.10
0.7	•01	314	105	-6000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	314	105	-6000	7000	0.20	0.04	-0.10	-0.10
1.2	•02	314	105	-6000	7000	0.20	0.04	-0.10	-0.10
1.2	•01	324	75	-3000	7000	0.15	0.04	-0.10	-0.10
1.2	•01	324	80	-3000	7000	0.15 0.15	0.04	-0.10	-0.10
0.6	•01	324 324	80 80	-3000 -3000	7000 7000	0.15	0.04	-0.10	-0.10
1.2	•03	324	85	-6000	8000	0.15	0.04	-0.10 -0.10	-0.10 -0.10
1.2	•01	324	85	-6000	8000	0.15	0.04	-0.10	-0.10
0.7	•01	324	85	-3000	8000	0.15	0.04	-0.10	-0.10
1.2	•02 •01	324	90	-6000	8000	0.15	0.04	-0.10	-0.10
1.3	•01	324	90	-6000	8000	0.15	0.04	-0.10	-0.10
1.2	•01	324	90	-6000	8000	0.15	0.04	-0.10	-0.10
1.2	•01	324	90	-3000	7000	0.15	0.04	-0.10	-0.10
1.2	•01	324	95	-6000	8000	0.15	0.04	-0.10	-0.10
1 • 2	• 0 1								****

TABLE XCII. MANEUVER $n_{\boldsymbol{z}}$ PEAKS VERSUS VARIOUS PARAMETERS BY FLIGHT CONDITION AND MISSION SEGMENT

									
			TOUC	HDOMN+	ноу	FD			
	NZ		TOUC	HIDOWN 4	nuv	LK			
NZ	DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
1.2	•00 •00	314 314	BLW BLW	-3000 -3000	7000 8000	0.05 BLW	0.04	-0.10 -0.10	-0.10 -0.10
1.2	•00	324	BLW	-3000	7000	BLW	0.04	-0.10	-0.10
1.03	•00	364	OL W	,,,,			••••		0110
			TOUCH	IDOWN .	DESC	FNT			
	NZ				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
NZ	DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
1.2	•04	314	BLW	-3000	7000	BLW	0.04	-0.10	-0.10
l			LEFT	TURN.	VCH	ER			
	NZ			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
NZ	DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
0.7	•01	314	BLW	-6000	8000	0.05	0.06	-0.10	-0.10
1.2	•00	314	BLW	-6000	8000	0.05	0.06	-0.10	-0.10
0.8	•03	314	40	-6000	8000	0.05	0.06	-0.10	-0.10
			LEST	TUDAL.	A C (*)	CNT			
			LEFT	TURN.	ASC	CIVI			
	NZ	D. P		41.5			am / -		
NZ	DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
1.1	•02 •04	314 314	60 60	-3000 -3000	7000 7000	0.10	0.04	-0.10 -0.10	-0.10
1.2	•28	314	75	-3000	7000	0.15	0.04	-C.10	-0.10 -0.10
1.1	•02	314	75	-3000	9000	0.15	0.06	-0.10	-0.10
1.1	•05	314	80	-6000	7000	0.15	0.04	-0.10	-0.10
0.8	.01	314	80	-6000	7000	0.15	0.04	-0.10	-0.10
0.8	•02	314	80	-6000	7000	0.15	0.04	-0.10	-0.10
1.1	• 24	314	80	0	7000	0.15	0.04	-0.10	-0.10
0.8	•01	314 314	85	-6000	7000 7000	0.15	0.04	-0.10	-0.10
1.1	•25 •26	314	85 85	-3000 -3000	7000	0.15 0.15	0.04	-0.10 -0.10	-0.10 -0.10
0.8	•02	314	90	-6000	7000	0.20	0.04	-0.10	-0.10
1.2	•33	324	75	BELOW	8000	0.15	0.04	-0.10	-0.10
							_		
		LE	FT TI	IPN.	LEVEL	FLIGH	łT		
	NZ								
NZ	DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
1.1	•08	314	40	-6000	6000	0.10	0.04	-0.10	-0.10
1.1	•02	314	40	-6000	7000	0.05	0.04	-0.10	-0.10
1.1	•02	314 314	40 40	-6000 -6000	7000 7000	0.05 0.10	0.04 0.04	-0.10 -0.10	-0.10 -0.10
1.1	•15 •13	314	40	-6000	8000	0.05	0.06	-0.10	-0.10
1.2	•20	314	60	-6000	6000	0.10	0.04	-0.10	-0.10
1.1	•04	314	60	6000	7000	0.10	0.06	-0.10	-0.10
1.2	•11	314	75	0	8000	0.15	0.06	-0.10	-0.10
1.1	•05	314	80	0	8000	0.15	0.06	-0.10	-0.10
1.1	•04	314	85	-3000	8000	0.15	0.06	-0.10	-0.10
1.1	•01 •01	314 314	85 95	-3000 -6000	8000 7000	0.15	0.06 0.04	-0.10 -0.10	-0.10 -0.10
	•••	247	,,	-0000	. 500	V120	0.04	-0010	-0.10
									į

TABLE XCII - Continued

			0.11	1 545	EL TOUT		TIALLES	,	
		LEFT TU	H.1.1 →	LrVfL	FLIGHT	CCON	IINUED	1	
1	NZ								
NZ	DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
1.2	.27	314	95	-6000	8000	0.20	0.04	-0.10	-0.10
0.8	•02	314	100	-6000	8000	0.20	0.04	-0.10	-0.10
1.1	.04	314	105	BELOW	8000	0.20	0.04	-0.10	-0.10
i.i	•07	314	105	BELOW	9000	0.20	0.04	-0.10	-0.10
l i.i	•01	314	105	0	8000	0.20	0.06	-0.10	-0.10
	•03	314	105	ŏ	8000	0.20	0.06	-0.10	
1.1		314	105	Ŏ	8000				-0.10
1.2	•09				7000	0.20	0.06	-0.10	-0.10
1.1	•02	314	110	-6000		0.20	0.04	-0.10	-0.10
1.1	•01	314	110	-6000	7000	0.20	0.04	-0.10	-0.10
1.1	•04	314	115	BELOW	9000	0.20	0.04	-0.10	-0.10
1.1	•07	314	115	BELOW	9000	0.20	0.06	-0.10	-0.10
1.1	•03	314	" 5	-6000	9000	0.20	0.06	-0.10	-0.10
1.1	•12	324	70	-3000	8000	0.10	0.06	-0.10	-0.10
1.1	• 03	324	70	-3000	8000	0.15	0.06	-0.10	-0.10
1.2	• 32	324	75	-3000	8000	0.15	0.06	-0.10	-0.10
1.1	•03	324	80	-3000	8000	0.15	0.06	-0.10	-0.10
1.2	•13	324	80	-3000	8000	0.15	0.06	-0.10	-0.10
1.1	• 04	324	80	-3000	8000	0.15	0.06	-0.10	-0.10
1.1	.05	324	90	-3000	8000	0.15	0.06	-0.10	-0.10
									_
			LEFT	THDM.	DESCE	MT			i
			LEFT	101114	ULJCL	P) [
	NZ								
NZ	DURATION		VEL	ALT	WGT	MU	CT/S	NX	NY
0.8	•01	314	40	-3000	6000	0.10	0.04	-0.10	-0.10
1.2	•17	314	60	-3000	6000	0.10	0.04	-0.10	-0.10
0.8	•03	314	60	-3000	9000	0.10	0.06	-0.10	-0.10
1.1	•03	314	60	-3000	9000	0.10	0.06	-0.10	-0.10
1.1	•03	314	70	-3000	9000	0.15	0.06	-0.10	-0.10
1.1	•01	314	95	BELOW	8000	0.20	0.04	-0.10	-0.10
0.8	•01	314	100	BELOW	8000	0:20	0.04	-0.10	-0.10
1.1	•02	324	80	-3000	8000	0.15	0.06	-0.10	-0.10
1.1	•09	324	85	-3000	8000	0.15	0.06	-0.10	-0.10
1.1	.06	324	90	0	8000	0.15	0.06	-0.10	-0.10
			RIGHT	TURN,	ASCEN	T			
				101017	0.101.11				
	NZ								
NZ	DURATIO	N RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
0.8	•02	314	60	0	7000	0.10	0.04	-0.10	-0.10
1.1	•07	314	75	-6000	7000	0.15	0.04	-0.10	-0.10
1.1	.02	314	85	-3000	7000	0.15	0.04	-0-10	-0.10
1.2	•02	314	90	-3000	7000	0.15	0.04	-0.10	-0.10
0.7	•03	314	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.3	•03	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
0.6	•03	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.1	•09	324	40	-6000	8000	0.05	0.04	-0.10	-0.10
i.i	•01	324	60	0	7000	0.10	0.04	-0.10	-0.10
i.i	.08	324	75	-6000	8000	0.15	0.04	-0.10	
i.i	•10	324	80	-6000	8000	0.15	0.04		-0.10
								-0.10	-0.10
1.1	•10	324	80	-6000	8000	0.15	0.04	-0.10	-0.10
1 , 2	•03	324	90	-6000	8000	0.15	0.04	-0.10	-0.10

TABLE XCII- Continued

			RIGHT	TURN.	LEVE	L FLI	GHT		
	NZ								
NZ	DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
1.1	•04	314	BLW	-3000	6000	0.05	0.04	-0.10	-0.1
1.2	•06	314	40	-6000	7000	0.10	0.04	-0.10	-0.10
1.2	•04	314	40	-3000	8000	0.10	0.04	-0.10	-0.1
1.1	•06	314	40	0	8000	0.10	0.06	-0.10	-0.1
1.2	•17	314	40	3000	7000	0.05	0.06	-0.10	-0.1
1.1	.04	314	60	-6000	7000	0.10	0.04	-0.10	-0.1
1.1	.04	314	60	-3000	6000	0.10	0.04	-0.10	-0.1
0.8	•01	314	60	-3000	6000	0.10	0.04	-0.10	-0.1
1.1	•01	314	60	-3000	6000	0.10	0.04	-0.10	-0.1
1.1	•01	314	60	-3000	9000	0.10	0.06	-0.10	-0.1
1.1	.08	314	60	0	7000	0.10	0.04	-0.10	-0.1
1.3	• 29	314	60	3000	7000	0.10	0.06	-0.10	-0.1
1.1	•01	314	60	3000	7000	0.10	0.06	-0.10	-0.1
1.3	•19	314	70	-6000	7000	0.10	0.04	-0.10	-0.1
1.1	•01	314	70	-6000	7000	0.15	0.04	-0.10	-0.1
1.2	•10	314	70	-3000	6000	0.15	0.04	-0.10	-0.1
1.1	•05	314	70	-3000	9000	0.15	0.06	-0.10	-0.1
0.8	•01	314	75	-3000	6000	0.15	0.04	-0.10	-0.1
1.1	•01	314	75	-3000	6000	0.15	0.04	-0.10	-0.1
1.2	•05	314	75	-3000	6000	0.15	0.04	-0.10	-0.1
0.8	•01	314	75	-3000	6000	0.15	0.04	-0.10	-0.1
1.2	•05	314	75	-3000	6000	0.15	0.04	-0.10	-0.1
1.1	•02	314	75	-3000	6000	0.15	0.04	-0.10	-0.10
1.1	•02	314	75	-3000	8000	0.15	0.06	-0.10	-0.10
1.1	• 05	314	75	-3000	8000	0.15	0.06	-0.10	-0.1
1.1	•03	314	75	-3000	8000	0.15	0.06	-0.10	-0.1
1.1	• 02	314	75	-3000	9000	0.15	0.06	-0.10	-0.10
1.2	.27	314	75	0	8000	0.15	0.06	-0.10	-0.10
1.1	•03	314	80	-3000	6000	0.15	0.04	-0.10	-0.10
1.1	•01	314	80	-3000	6000	0.15	0.04	-0.10	-0.10
1.2	•42	314	80	-3000	7000	0.15	0.04	-0.10	-0.10
1.1	•03	314	80	-3000	9000	0.15	0.06	-0.10	-0.10
1.1	•09	314	80	-3000	9000	0.15	0.06	-0.10	-0.10
1.1	•10	314	80	0	8000	0.15	0.06	-0.10	-0.10
1.1	•03	314	85	-3000	6000	0.15	0.04	-0.10	-0.10
1.1	•08	314	90	-6000	8000	0.15	0.04	-0.10	-0.10
1.1	•02	314	90	-3000	6000	0.15	0.04	-0.10	-0.10
1.1	•01	314	90	-3000	6000	0.15	0.04	-0.10	-0.10
1.1	•02	314	95 95	-6000	8000	0.15	0.04	-0.10	-0.10
1.1	•05	314 314	95 95	-6000	8000	0.20	0.04	-0.10	-0.10
1.1	•00	314	95	-3000 -3000	6000 6000	0.20	0.04	-0.10	-0.10
8.0	•01	314	95	-3000	6000	0.20	0.04	-0.10	-0.10
l•1 l•1	•02 •03	314	95	-3000	7000	0.20	0.04 0.04	-0.10	-0.10
1.2	•06	314	95	-3000	7000	0.20	0.04	-0.10 -0.10	-0.10 -0.10
1.1	•01	314	100	-3000	6000	0.20	0.04		-0.10
1.3	•30	314	105	-6000	8000	0.20	0.04	-0.10 -0.10	-0.10
1.1	•01	314	105	-3000	6000	0.20	0.04	-0.10	-0.10
7	•01	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
1.2	•02	314	110	-3000	7000	0.20	0.04	-0.10	-0.10
	1 V L							-0010	-0010
1.1	•04	314	115	BELOW	9000	0.20	0.04	-0.10	-0.10

TABLE XCII - Continued

	·· -								
	R	IGHT TU	RN.	LEVEL	FLIGHT	CONT	INUED)		
	NZ	10111 19				100111			
NZ	DURATION	RPM	VEL	ALT	WGT	MH	CT/S	NX	NY
1.1	•05	324	40	-6000	8000	0.05	0.04	-0.10	-0.10
1.2	•08	324	40	-6000	8000	0.10	0.04	-0.10	-0.10
1.1	.03	324	40	-6000	8000	0.10	0.04	-0.10	-0.10
1.2	.14	324	40	-6000	8000	0.10	0.04	-0.10	-0.10
1.2	.03	324	60	-6000	8000	0.10	0.04	-0.10	-0.10
0.8	•04	324	80	-3000	6000	0.15	0.04	-0.10	-0.10
1.1	•02	324	80	-3000	7000	0.15	0.04	-0.10	-0.10
1.1	•13	324	85	-6000	8000	0.15	0.04	-0.10	-0.10
1.1	• 04	324	85	-6000	8000	0.15	0.04	-0.10	-0.10
1.1	•03	324	85	-3000	7000	0.15	0.04	-0.10	-0.10
1.2	•02	324	85	-3000	8000	0.15	0.04	-0.10	-0.10
1.1	•01	324	85	-3000	8000	0.15	0.04	-0.10	-0.10
1.1	•05	324	90	-6000	8000	0.15	0.04	-0.10	-0.10
0.8	•02	324	90	-3000	7000	0.15	0.04	-0.10	-0.10
1.1	•01	324	90	-3000	8000	0.15	0.04	-0.10	-0.10
0.8	•01	324	90	-3000	8000	0.15	0.04	-0.10	-0.10
1.1	•02	324	90	-3000	8000	0.15	0.04	-0.10	-0.10
0.8	•01	324	95	-3000	7000	0.15	0.04	-0.10	-0.10
1.2	•05	324	95	-3000	8000	0.15	0.04	-0.10	-0.10
1.2	•01	324	105	-3000	7000	0.20	0.04	-0.10	-0.10
0.7	•02	324	105	-3000	7000	0.20	0.04	-0.10	-0.10
1.1	•02	324	105	0	8000	0.20	0.06	-0.10	-0.10
1.1	•04	324	105	0	8000	0.20	0.06	-0.10	-0.10
		F	IGHT	TURN.	DESCE	MT			
	NZ								
NZ	DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY
1.2	•04	314	BLW	-6000	7000	0.05	0.04	-0.10	-0.10
0.8	•01	314	40	-6000	7000	0.10	0.04	-C.10	-0.10
1.1	•06	314	40	-6000	7000	0.10	0.04	-0.10	-0.10
1.1	•01	314	60	-3000	6000	0.10	0.04	-0.10	-0.10
1.1	•11	314	60	-3000	8000	0.10	0.06	-0.10	-0.10
1.2	•41	314	80	-3000	7000	0.15	0.04	-0.10	-0.10
1.1	•03	314	80	-3000	9000	0.15	0.06	-0.10 -0.10	-0.10 -0.10
1.1	•02	314	80	2000	8000	0.15 0.15	0.06 0.04	-0.10	-0.10
1.2	•02	314	85	-3000	7000 7000	0.15	0.04	-0.10	-0.10
0.6	•02 •07	314	90	-3000	7000	0.15	0.04	-0.10	-0.10
1.1	•03	314 314	95 95	3000 3000	7000	0.20	0.06	-0.10	-0.10
0.8	•04	314	95 100	BELOW	9000	0.20	0.06	-0.10	-0.10
1.1	•01		115	-6000	8000	0.20	0.04	-0.10	-0.10
1.1	•01	314 324	85	-6000	8000	0.15	0.04	-0.10	-0.10
0.8	•02	324	90	-6000	8000	0.15	0.04	-0.10	-0.10
1.1	•06	324	90	3000	7000	0.15	0.06	-0.10	-0.10
1.1	•03	324	95	-6000	8000	0.15	0.04	-0.10	-0.10
i.i	•03	324	95	3000	7000	0.15	0.06	-0.10	-0.10

TABLE XCII - Continued

		COLLECTIVE PUSHOVER.			FR•	ASCENT				
	NZ	0014	VCI	41.7	wom	\m.	OT / C	4147	****	
NZ 1.2	DURATION • 01	RPM 324	VEL 40	ALT 0	WGT 8000	MU 0.10	CT/S 0.06	NX -0.10	NY -0.10	
0.7	•02	324	85	-6000	8000	0.15	0.04	-0.10	-0.10	
		LLECTIV	E PU	SHOVER.	LF	VEL FI	LIGHT			
NZ	N2 DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY	
0.7	•03 •01	314 314	40 80	-3000 -3000	6000 6000	0.10 0.15	0.04	-0.10 -0.10	-0.10 -0.10	
0.7	•01	314	95	-6000	7000	0.20	0.04	-0.10	-0.10	
0.7	•01	324	BLW	-6000	8000	0.05	0.04	-0.10	-0.10	
0.7	•02	324 324	80 85	-6000 -3000	8000 7000	0.15 0.15	0.04 0.04	-0.10 -0.10	-0.10 -0.10	
1.2	•00 •01	324	85	-3000	7000	0.15	0.04	-0.10	-0.10	
1										
	.=	COLLEC	TIVE	PUSHOV	ER•	DESC	ENT			
NZ	NZ DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY	
0.8	•01	314	110	BELOW	9000	0.20	0.06	-0.10	-0.10	
1.2	•01	324	80	-3000	7000	0.15	0.04	-0.10	-0.10	
		CYC	וזכו	USHOVE	R. DES	CENT				
l	NZ	(1)		().)	, , , , ,	CCITT				
NZ	DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	NY	
1.2	•11 •05	314 314	40 90	-3000 0	7000 8000	0.05 0.15	0.04	-0.10 -0.10	-0.10 -0.10	
1.02	•07	3.4	,,	•						
	COL	LLECTIV	E PUL	LUP.	LF	VFL FL	_IGHT			
	NZ	DDM	1151	41.00	wom		om (o			
NZ 1.3	DURATION • 02	RPM 314	VEL 60	ALT -6000	WGT 7000	MU 0.10	CT/S 0.04	NX -0.10	NY -0.10	
1.2	•01	324	80	-6000	8000	0.15	0.04	-0.10	-0.10	
						0556	CALT			
	N.7	COLLEC	1101	DULLU	•	DESC	ENI			
NZ	NZ DURATION	RPM	VEL	ALT	WGT	MU	CT/S	NX	MV	
1.2	•02	314	105	-6000	7000	0.20	0.04	-0.10	-0.10	
1.2	•01	324	60	BELOW	8000	0.10	0.04	-0.10	-0.10	
		CYCL	IC PU	LLUP.	LFVEL	FLIG	нт			
	NZ									
NZ 1.3	DURATION • 02	RPM 314	VEL 75	ALT -3000	WGT	MU	CT/S	NX	NY	
1.4	•14	314	80	-6000	7000 7000	0.15 0.15	0.04 0.04	-0.10 -0.10	-0.10 -0.10	
1.2	•01	314	80	-3000	7000	0.15	Ü-04	-0.10	-0.10	
1.4	•15 •03	314 314	95 95	-3000 -3000	7000 7000	0.20	0.04	-0.10 -0.10	-0.10	
1.03	•03	317	7)	~ 3000	, 000	0.20	0.04	-0.10	-0.10	
									_	

TABLE XCII - Concluded										
CYCLIC PULLUP. DESCENT										
NZ 1.3 1.3	NZ DURATION •18 •11	RPM 314 324	VEL 70 60	ALT -3000 -6000	WGT 6000 8000	MU 0.15 0.10	CT/S 0.04 0.04	NX -0.10 -0.10	NY -0.10 -0.10	
		ST	EADY	STATE.	AUTO	ROTAT	ION			
N2 0.7	NZ DURATION •12	RPM 304	VEL 70	ALT O	WGT 7000	MU 0.15	CT/S 0.06	-0.10	NY -0.10	
		1.	TRANS	IENT.	TRA	NSITIO	N			
NZ 1.3 1.2 0.6 0.7	NZ DURATION •01 •01 •09 •22	RPM 314 314 314 324	VEL 70 70 75 85	ALT -3000 -3000 0	WGT 7000 7000 7000 7000	MU 0.10 0.15 0.15 0.15	CT/S 0.04 0.04 0.04 0.06	NX -0.10 -0.10 -0.10 -0.10	NY -0.10 -0.10 -0.10 -0.10	

TABLE XCIII. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $n_{\mathbf{Z}}$ PEAKS FOR ROTOR START

RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
9.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	33.0	0.00	33.0	0.00	0.00
SUM	33.0	0.00	33.0	0.00	0.00

TABLE XCIV. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $\mathbf{n_z}$ PEAKS FOR ROTOR STOP

	ROT	TOR STOP. GF	D CONDIT	ION	
	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	29.0	0.00	29.0	0.00	0.00
SUM	29.0	0.00	29.0	0.00	0.00

TABLE XCV. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $n_{_{\boldsymbol{Z}}}$ PEAKS FOR TAKEOFF BY MISSION SEGMENT

		TAKEOFF,	HOVER		
	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
9.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0•0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	46.0	0.00	46.0	0.00	11.18
SUM	46.0	0.00	46.0	0.00	11.18
		TAKEOFF.	ASCEN	Ţ	
	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.0C	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	20.0	0.00	20.0	0.00	3.50
SUM	20.0	0.00	20.0	0.00	3.50

TABLE XCVI. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER nz PEAKS FOR TOUCHDOWN BY MISSION SEGMENT

		TOUCHDOWN.	HOVER		
	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
RELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0-00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	1.0	•00	1.0	•00	0.00
1.3	1.0	•00	1.0	•00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	48.0	0.00	48.0	0.00	0.00
SUM	50.0	•00	50.0	•00	0.00
		UCHDOWN . LE			
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
	0.0	0.00	0.0	0.00	0.00
	0.0	0.00	0.0	0.00	0.00
1.5			0.0	0.00	
1.5 1.6		0.00	Uev		() - ()()
1.5 1.6 1.7	0.0	0.00 0.00			0.00
1.5 1.6 1.7 1.8	0.0	0.00	0.0	0.00	0.00
1.5 1.6 1.7 1.8 2.0	0.0 0.0 0.0	0.00 0.00	0.0	0.00	0.00
1.5 1.6 1.7 1.8	0.0	0.00	0.0	0.00	0.00

TABLE XCVI - Concluded

		TOUCHDOWN.	DESCENT		
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
		0.00	12.0	0.00	0.00
NONE	12.0	0.00	1540	3.50	0.00
SUM	12.0	0.00	12.0	0.00	0.00

TABLE XCVII. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER nz PEAKS FOR GROUND TAXI

	GROUN	D TAXI+	GRD COM	IDITION	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	2.0	.04	2.0	•04	.95
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	14.0	0.00	11.0	0.00	7.84
SUM	16.0	•04	16.0	•04	8.79

TABLE XCVIII. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $\mathbf{n_Z}$ PEAKS FOR MISSION SEGMENT VARIATION BY MISSION SEGMENT

		N SEGMENT			TOTAL
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL DCCUR.	N DURATION	TATAL TIME
PELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
		0.00	0.0	0.00	0.00
0.7	0.0			0.00	
0 · 8	0.0	0.00	0.0		0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.60	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
MONE	40.0	0.00	40.0	0.00	0.00
SUM	40.0	0.00	40.0	0.00	0.00
	MISSION SE	GMENT VARI	ATION: LE	VEL FLIGHT	
	MAX.	GMENT VARI NZ	TOTAL	NZ	TOTAL
RANGE					TOTAL TIME
	MAX.	NZ	TOTAL	NZ	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TIME
RANGE BELOW	MAX. OCCUR. 0.0	NZ DURATION 0.00	TOTAL OCCUR. 0.0	NZ DURATION 0.00	TIME 0.00
RANGE BFLOW 0.4	MAX • OCCUR • 0 • 0 0 • 2	NZ DURATION 0.00 0.00	TOTAL OCCUR• 0•0 0•0	NZ DURATION 0.00 0.00	TIME 0.00 Q.00
RANGE BFLOW 0.4 0.5	MAX. OCCUR. 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00	TOTAL OCCUR• 0•0 0•0	NZ DURATION 0.00 0.00 0.00	TIME 0.00 Q.00 0.00
RANGE BFLOW 0.4 0.5 0.6	MAX. OCCUR. 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00	TOTAL OCCUR• 0•0 0•0 0•0	NZ DURATION 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00
RANGE BFLOW 0.4 0.5 0.6 0.7	MAX. OCCUR. 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00
RANGE BFLOW 0.4 0.5 0.6 0.7 0.8	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00
RANGE BFLOW 0.4 0.5 0.6 0.7 0.8	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00
RANGE BFLOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RANGE BFLOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00
RANGE BFLOW 0.4 0.5 0.6 0.7 0.9 1.1 1.2 1.3	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RANGE BFLOW 0.4 0.5 0.6 0.7 0.9 1.1 1.2 1.3	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RANGE BFLOW 0.4 0.5 0.6 0.7 0.9 1.1 1.2 1.3 1.4	MAX • OCCUR • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 •	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RANGE BFLOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5	MAX • OCCUR • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 •	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RANGE BFLOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RANGE BFLOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 2.0	MAX • OCCUR • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 •	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RANGE BFLOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.

TABLE XCVIII - Concluded

	MISSION	SEGMENT	VARIATION .	DESCENT	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	₫• 0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
MONE	50.0	0.00	50.0	0.00	0.00
SUM	50.0	0.00	50.0	0.00	0.00

TABLE XCIX. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $\mathbf{n_z}$ PEAKS FOR BEGIN IN FLIGHT

	BEGIN	IN FLIGHT	· LEVEL F	L 1981	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	1.0	0.00	1.0	0.00	0.00
SUM	1.0	0.00	1.0	0.00	0.00

TABLE C. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $n_{_{\mbox{\scriptsize Z}}}$ PEAKS FOR END IN FLIGHT BY MISSION SEGMENT

RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DUPATION	TOTAL TIME
_				0.00	0.00
FLOW	0.0	0.00	0.0		
0.4	0.0	0.00	0.0	0.00 0.00	0.00 0.00
0.5	0.0	0.00	0•0 0•0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8 0.9	0.0	0.00	0.0	0.00	0.00
1.1	0∙0 0•0	0.00 0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	4.0	0.00	4.C	0.00	0.00
SUM	4.0	0.00	4.0	0.00	0.00
	END 1	N EL TOUT - 1	DD CONDI	TIONS	
		N FLIGHT. (TOTAL
ANGE	MAX.	NZ	TOTAL	NZ	TOTAL TIME
	MAX. OCCUR.	NZ DURATION	TOTAL DCCUR.	NZ DURATION	TIME
FLOW	MAX. OCCUR. 0.0	NZ DURATION 0.00	TOTAL DCCUR. 0.0	NZ DURATION 0.00	TIME 0.00
FLOW 0.4	MAX. OCCUR. 0.0 0.0	NZ DURATION 0.00 0.00	TOTAL DCCUR. 0.0 0.0	NZ DURATION 0.00 0.00	TIME 0.00 0.00
0.4 0.5	MAX. OCCUR. 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00	TOTAL DCCUR• 0•0 0•0 0•0	NZ DURATION 0.00 0.00 0.00	TIME 0.00 0.00 0.00
ELOW 0.4 0.5 0.6	MAX. OCCUR. 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00	TOTAL DCCUR+ 0+0 0+0 0+0 0+0	NZ DURATION 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00
0.4 0.5	MAX. OCCUR. 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TOTAL DCCUR. 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00
0.4 0.5 0.6 0.7	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00	TOTAL DCCUR+ 0+0 0+0 0+0 0+0	NZ DURATION 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00
ELOW 0.4 0.5 0.6 0.7 0.8	MAX. OCCUR. 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TOTAL DCCUR. 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00
ELOW 0.4 0.5 0.6 0.7 0.8 0.9	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL DCCUR. 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00
ELOW 0.4 0.5 0.6 0.7 0.8 0.9 i.1	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL DCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
FLOW 0.4 0.5 0.6 0.7 0.8 0.9 i.1 1.2	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL DCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
FLOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL DCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
FLOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL DCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
FLOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL DCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
ELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL DCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
FLOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL DCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
FLOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL DCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
0.5 0.6 0.7 0.8 0.9 i.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 2.0	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL DCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.

TABLE CI. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $\mathbf{n}_{\mathbf{Z}}$ PEAKS FOR INITIATION OF ASCENT BY MISSION SEGMENT

	INIT	TATION OF	ASCENT.	HOVER	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL	NZ DUPATION	TOTAL TIME
RELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00		0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3			0.0		0.00
	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	37.0	0.00	37.0	0.00	6.21
SUM	37.0	0.00	37.0	0.00	6.21
	INITI	ATION OF A	SCENT.	ASCENT	
RANGE	MAX.	NZ	TOTAL	NZ	TOTAL TIME
RANGE BELOW	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TIME
BELOW	MAX. OCCUR. 0.0	NZ DURATION 0.00	TOTAL OCCUR. 0.0	NZ DURATION 0.00	TIME 0.00
BELOW 0.4	MAX. OCCUR. 0.0 0.0	NZ DURATION 0.00 0.00	TOTAL OCCUR• 0•0 0•0	NZ DURATION 0.00 0.00	TIME 0.00 0.00
BELOW 0.4 0.5	MAX. OCCUR. 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00	TOTAL OCCUR• 0•0 0•0 0•0	NZ DURATION 0.00 0.00 0.00	TIME 0.00 0.00 0.00
BELOW 0.4 0.5 0.6	MAX. OCCUR. 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00	TOTAL OCCUR• 0•0 0•0 0•0	NZ DURATION 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00
BELOW 0.4 0.5 0.6 0.7	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00	TOTAL OCCUR• 0•0 0•0 0•0 0•0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00
BELOW 0.4 0.5 0.6 0.7 0.8	MAX • OCCUR • 0 • 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR• 0•0 0•0 0•0 0•0 0•0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00
BELOW 0.4 0.5 0.6 0.7 0.8 0.9	MAX • OCCUR • 0 • 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1	MAX • OCCUR • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 •	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1	MAX • OCCUR • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 •	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2	MAX • OCCUR • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 •	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3	MAX • OCCUR • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 •	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3	MAX • OCCUR • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 •	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4	MAX • OCCUR • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 •	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7	MAX • OCCUR • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 •	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7	MAX • OCCUR • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 •	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 2.0	MAX • OCCUR • 0 • 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7	MAX • OCCUR • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 • 0 •	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 2.0 2.2	MAX • OCCUR • 0 • 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.

TABLE CII. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $\mathbf{n_z}$ PEAKS FOR LEFT TURN BY MISSION SEGMENT

		LEFT TURN	HOVER		
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	1.0	•01	0.00
0.8	0.0	0.00	1.0	•03	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	1.0	•00	1.0	•00	.71
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0,00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.9	0.0	0.00	0.0	0.00	0.00
2,0	0.0	0.00	0.0	0.00	0.00
	0.0	0.00	0.0	0.00	0.00
2.2 NONE		0.00	6.0	0.00	1.95
NUME.	6.0	0.00			
SUM	7.0	•00	7.0	•05	2.66
		LEFT TURN			
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL
RELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	$0 \bullet 0$	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	1.0	•02	4.0	•07	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	5.0	•58	6.0	• 62	2.52
1.2	3 ⊷0	.87	3.0	.87	1.43
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7		0 00	0.0	0.00	0.00
1 • 7 1 • 8	0.0	0.00	., .,		
1.7 1.8 2.0	0.0	0.00	0.0	0.00	0.00
1.7 1.8 2.0 2.2	0 • 0 0 • 0 0 • 0	0.00	0.0 0.0	0.00	0.00
1.7 1.8 2.0	0.0	0.00	0.0		

TABLE CII - Concluded

	L	EFT TURN. L	EVEL FLI	GHT		
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME	
BELOW	0.0	0.00	0.0	0.00	0.00	
0.4	0.0	0.00	0.0	0.00	0.00	
0.5	0.0	0.00	0.0	0.00	0.00	
0.6	0.0	0.00	0.0	0.00	0.00	
0.7	0.0	0.00	0.0	0.00	0.00	
0.8	0.0	0.00	1.0	•02	0.00	
0.9	0.0	0.00	0.0	0.00	0.00	
1.1	15.0	•72	24.0	1.14	9.80	
1.2	6.0	1.12	6.0	1.12	4.47	
.1.3	0.0	0.00	0.0	0.00	0.00	
1.4	0.0	0.00	0.0	0.00	0.00	
1.5	0.0	0.00	0.0	0.00	Q.00	
1.6	0.0	0.00	0.0	0.00	0.00	
1.7	0.0	0.00	0.0	0.00	0.00	
1.8	0.0	0.00	0.0	0.00	0.00	
2.0	0.0	0.00	0.0	0.00	0.00	
2.2	0.0	0.00	0.0	0.00	0.00	
NONE	50.0	0.00	49.0	0.00	19.40	
SUM	71.0	1.84	71.0	2.29	33.67	
		LEFT TURN	. DESCEN	т		
DANCE	MAX.	NZ	TOTAL	NZ	TOTAL	
RANGE	SCCUR.	DURATION	OCCUR.	DURATION	TIME	
RELOW	0.0	0.00	0.0	0.00	0.00	
0.4	0.0	0.00	0.0	0.00	0.00	
0.5	0.0 0.0	0.00 0.00	0.0	0.00	0.00	
0.7	0.0	0.00	0•0 0•0	0.00 0.00	0.00 0.00	
0.8	0.0	0.00	3.0	•05	0.00	
0.9	0.0	0.00	0.0	0.00	0.00	
1.1	4.0	•13	6.0	.24	2.30	
1.2	1.0	.17	1.0	.17	•65	
1.3	0.0	0.00	0.0	0.00	0.00	
1.4	0.0	0.00	0.0	0.00	0.00	
1.5	0.0	0.00	0.0	0.00	0.00	
1.6	0.0	0.00	0.0	0.00	0.00	
1.7	0.0	0.00	0.0	0.00	0.00	
	0.0	0.00	0.0	0.00	0.00	
1.8	0.0	0.00	0.0	0.00	0.00	
1 • 8 2 • 0		0.00	0.0	0.00	0.00	
	0.0	0.00				
2.0	0.0 14.0	0.00	14.0	0.00	7.46	

TABLE CIII. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER \mathbf{n}_{z} PEAKS FOR RIGHT TURN BY MISSION SEGMENT

		RIGHT TUR			
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	6.0	0.00	6.0	0.00	2.24
SUM	6.0	0.00	6.0	0.00	2.24
		RIGHT TUR	N. ASCENT		
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL	NZ DURATION	TOTAL TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	1.0	•03	0.00
0.7	0.0	0.00	1.0	.03	0.00
0.8	0.0	0.00	1.0	•02	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	5.0	• 35	7.0	.48	2.99
1.2	2.0	.05	2.0	.05	1.05
1.3	1.0	•03	1.0	•03	.78
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.0
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	22.0	0.00	22.0	0.00	8.50
SUM	30.0	•43	30.0	.63	13.31

TABLE CIII - Concluded

	RIC	GHT TURN, L	EVEL FLIG	нт	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
BFLOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	2.0	• 04	0.00
0.8	0.0	0.00	8.0	•12	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	25.0	1.06	45.0	1.54	13.13
1.2	11.0	1.33	16.0	1.58	6.57
1.3	3.0	.78	3.0	.78	.90
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	72.0	0.00	71.0	0.00	34.22
SLIM	111.0	3.18	111.0	4.06	54.81

RIGHT TURN. DESCENT

RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
PELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	1.0	•02	1.0	•02	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	3.0	•07	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	8.0	• 30	11.0	• 41	4.51
1.7	3.0	•47	3.0	•47	1.59
1.3	1.0	•07	1.0	•07	.44
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.60	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
MONE	16.0	0.00	16.0	0.00	7.75
SUM	29.0	.86	29.0	1.03	14.30

TABLE CIV. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $n_{\boldsymbol{z}}$ PEAKS FOR COLLECTIVE PUSHOVER BY MISSION SEGMENT

	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0,00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	1.0	0.00	1.0	0.00	•09
SUM	1.0	0.00	1.0	0.00	•09
	MAX.	ECTIVE PUSH	TOTAL	ASCENT NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
	1.0	•02	1.0	•02	•07
0.7	0.0	0.00	0.0	0.00	0.00
0.7 0.8				0.00	
	0.0	0.00	0.0	0.00	0.00
0.8	0•0 0•0	0.00		0.00	0.00
0.8			0.0		
0.8 0.9 1.1	0.0	0.00	0.0	0.00	0.00
0.8 0.9 1.1 1.2 1.3	0•0 0•0 0•0	0.00 0.00 0.00	0.0 0.0 1.0 0.0	0.00 .01	0.00
0.8 0.9 1.1 1.2	0.0 0.0 0.0 0.0	0.00	0.0 0.0 1.0	0.00 .01 0.00	0.00 0.00 0.00
0.8 0.9 1.1 1.2 1.3 1.4	0.0 0.0 0.0 0.0	0.00 0.00 0.00 0.00 0.00	0.0 0.0 1.0 0.0 0.0	0.00 .01 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
0.8 0.9 1.1 1.2 1.3 1.4 1.5	0.0 0.0 0.0 0.0 0.0 0.0	0.00 0.00 0.00 0.00 0.00 0.00	0.0 0.0 1.0 0.0 0.0 0.0	0.00 .01 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6	0.0 0.0 0.0 0.0 0.0 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.0 0.0 1.0 0.0 0.0 0.0 0.0	0.00 .01 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0	0.00 .01 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 2.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0	0.00 .01 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0	0.00 .01 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00

TABLE CIV - Concluded

	COLLECT	IVE PUSHOV	ER• L	EVEL FLIGHT	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	5.0	.08	5.0	• 08	.48
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	2.0	•02	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	79.0	0.00	78.0	0.00	11.80
SUM	84.0	.08	84.0	•10	12.28
		CTIVE PUSHO	OVER • !	DESCENT NZ	TOTAL
RANGE	MAX. OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	.07
0.9	0.0	0.00	0.0	0.00	0.00
1•1 1•2	0.0 1.0	0.00 .01	0.0 1.0	0.00 .01	0.00 0.26
1.3	0.0	0.00	0.0	0.00	
1.4	0.0	0.00	0.0	0.00	0.00 0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	22.0	0.00	21.0	0.00	5.11
SUM	23.0	•01	23.0	•02	5.44

TABLE CV. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER n_{Z} PEAKS FOR CYCLIC PUSHOVER BY MISSION SEGMENT

	C,	YCLIC PUSHO	VER • ASCE	NT	
	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00		0.00	0.00
			0.0		0.00
1.5	0.0	0.00	0.0	0.00	
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	00.0	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	1.0	0.00	1.0	0.00	.16
SUM	1.0	0.00	1.0	0.00	•16
	CYCL	IC DUSHOVE			
		.IC PUSHOVE			
DANGE	MAX.	NZ	TOTAL	NZ	TOTAL
	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TIME
RANGE BELOW	MAX. OCCUR. 0.0	NZ DURATION 0.00	TOTAL OCCUR. 0.0	NZ DURATION 0.00	TIME 0.00
BELOW 0.4	MAX. OCCUR. 0.0 0.0	NZ DURATION 0.00 0.00	TOTAL OCCUR. 0.0 0.0	NZ DURATION 0.00 0.00	TIME 0.00 0.00
BELOW 0.4 0.5	MAX. OCCUR. 0.0 0.0	NZ DURATION 0.00 0.00 0.00	TOTAL OCCUR• 0•0 0•0	NZ DURATION 0.00 0.00 0.00	TIME 0.00 0.00 0.00
0.4 0.5 0.6	MAX. OCCUR. 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00
BELOW 0.4 0.5 0.6 0.7	MAX. OCCUR. 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00
BELOW 0.4 0.5 0.6 0.7 0.8	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00
BELOW 0.4 0.5 0.6 0.7 0.8 0.9	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00
BELOW 0.4 0.5 0.6 0.7 0.8 0.9	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 2.0	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
RELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 2.0	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.

TABLE CV - Concluded

	CY	CLIC PUSHO	/ER + DESCE	ENT	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
RELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0 . R	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	2.0	.16	2.0	•16	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.7	0.0	0.00	0.0	0.00	0.00
MONE	3.0	0.00	3.0	0.00	1.09
SUM	5.0	•16	5.0	•16	1.09

TABLE CVI. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $n_{\boldsymbol{Z}}$ PEAKS FOR COLLECTIVE PULL-UP BY MISSION SEGMENT

E : 1

	COLILE	CTIVE PULL	JP•	HOVER	***	
	MAX.	NZ	TOTAL	NZ	TOTAL	
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME	
BELOW	0.0	0.00	0.0	0.00	0.00	
0.4	0.0	0.00	0.0	0.00	0.00	
0.5	0.0	0.00	0.0	0.00	0.00	
0.6	0.0	0.00	0.0	0.00	0.00	
0.7	0.0	0.00	0.0	0.00	0.00	
0.8	0.0	0.00	0.0	0.00 0.00	0.00 0.00	
0.9	0•0 0•0	0.00	0•0 0•0	0.00	0.00	
1•1 1•2	0.0	0.00	0.0	0.00	0.00	
1.3	0.0	0.00	0.0	0.00	0.00	
1.4	0.0	0.00	0.0	0.00	0.00	
1.5	0.0	0.00	0.0	0.00	0.00	
1.6	0.0	0.00	0.0	0.00	0.00	
1.7	0.0	0.00	0.0	0.00	0.00	
1.3	0.0	0.00	0.0	0.00	0.00	
2.0	0.0	0.00	0.0	0.00	0.00	
2.2	0.0	0.00	0.0	0.00	0.00	
NONE	1.0	0.00	1.0	0.00	.09	
SUM	1.0	0.00	1.0	0.00	•09	
	COLL	ECTIVE PUL	_UP•	ASCENT		
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME	
BELOW	0.0	0.00	0.0	0.00	0.00	
0.4	0.0	0.00	0.0	0.00	0.00	
0.5	0.0	0.00	0.0	0.00	0.00	
0.6	0.0	0.00	0.0	0.00	0.00	
0.7	0.0	0.00	0.0	0.00	0.00	
0.8	0.0	0.00	0.0	0.00	0.00	
0.9	0.0	0.00	0.0	0.00	0.00	•
1.1	0.0	0.00	0.0	0.00	0.00	
1.2	0.0	0.00	0.0	0.00	0.00	
1.3	0.0	0.00	0.0	0.00	0.00	
1.4	0.0	0.00	0.0	0.00	0.00	
1.5	0.0	0.00	0•0 0•0	0.00 0.00	0.00	
1.6 1.7	0.0	0.00 0.00	0.0	0.00	0.00 0.00	
1.8	0.0	0.00	0.0	0.00	0.00	
2.0	0.0	0.00	0.0	0.00	0.00	
2.2	0.0	0.00	0.0	0.00	0.00	
NONE	7.0	0.00	7.0	0.00	•62	
SUM	7.0	0.00	7.0	0.00	•62	

TABLE CVI - Concluded

	COLLECT	IVE PULLUP	LE	VEL FLIGHT	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	N2 DURATION	TOTAL TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9 1.1	0•0 0•0	0.00 0.00	0•0 0•0	0.00	0.00 0.00
1.2	1.0	•01	1.0	•01	•11
1.3	1.0	•02	1.0	•02	.17
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	32.0	0.00	32.0	0.00	5.60
SUM	34.0	•03	34.0	•03	5.88
	COLLE	CTIVE PULLU	IP,	DESCENT	
	MAU	4.9	70741	A. 5	TATA1
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL Time
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0 2.0	0.00 .02	0.0	0.00	0.00
1•2 1•3	0.0	0.00	2•0 0•0	•02 0•00	•25 0•00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0 · 00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	36.0	0.00	36.0	0.00	5.22
SUM	38.0	•02	38.0	•02	5.47

TABLE CVII. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $n_{\boldsymbol{z}}$ PEAKS FOR CYCLIC PULL-UP BY MISSION SEGMENT

	(YCLIC PULL	UP + HOVI	R	million was an applicable throats of a
B4446	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6 0.7	0•0 0•0	0.00	0•0 0•0	0.00 0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00 0.00
0.8	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	8.0	0.00	8.0	0.00	1.55
SUM	8.0	0.00	8.0	0.00	1.55
		CLIC PULLUI			TOTAL
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0 0.0	0.00	0.00
0.9 1.1	0•0 0•0	0.00 0.00	0.0	0.00	0.00 0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0).00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	1.0	0.00	1.0	0.00	•09
SUM	1.0	0.00	1.0	0.00	•09
•					

TABLE CVII - Concluded

	CYCL	IC PULLUP.	LEVEL F	LIGHT	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	1.0	•01	0.00
1.3	1.0	•03	2.0	•05	.28
1.4	2.0	•29	2.0	.29	•40
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	12.0	0.00	12.0	0.00	2.59
SUM	15.0	•32	15.0	• 35	3.26
	MAX.	CLIC PULLUP	TOTAL	NZ	TOTAL
RANGE					TOTAL TIME
	MAX.	NZ	TOTAL	NZ	
	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TIME
ELOW	MAX. OCCUR. 0.0 0.0 0.0	NZ DURATION 0.00	TOTAL OCCUR. 0.0	NZ DURATION 0.00 0.00 0.00	TIME 0.00
0.4 0.5 0.6	MAX. OCCUR. 0.0	NZ DURATION 0.00 0.00 0.00 0.00	TOTAL OCCUR• 0•0 0•0 0•0	NZ DURATION 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00
0.4 0.5 0.6 0.7	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR• 0•0 0•0 0•0 0•0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00
0.4 0.5 0.6 0.7	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR• 0•0 0•0 0•0 0•0 0•0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00
0.4 0.5 0.6 0.7 0.8 0.9	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR• 0•0 0•0 0•0 0•0 0•0 0•0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00
0.4 0.5 0.6 0.7 0.8 0.9	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR• 0•0 0•0 0•0 0•0 0•0 0•0 0•0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
3ELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
8ELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
BELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 2.0	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
DELOW 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 2.0 2.2	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 2.0	MAX. OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TOTAL OCCUR. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NZ DURATION 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	TIME 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.

TABLE CVIII. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $\mathbf{n_{Z}}$ PEAKS FOR FLARE BY MISSION SEGMENT

	FL	ARE. L	EVEL FLI	GHT	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
	0.0	0.00	0.0	0.00	0.00
2.2 NONF	2.0	0.00	2.0	0.00	.40
NUNF	2.0	0.00	2.0	0.00	• • • •
SUM	2.0	0.00	2.0	0.00	•40
		FLARE,	DESCENT	,	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
PFLOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0:00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	51.0	0.00	51.0	0.00	15.19
	51.0	0.00	51.0	0.00	15.19

TABLE CIX. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $\mathbf{n_{Z}}$ PEAKS FOR STEADY STATE BY MISSION SEGMENT

	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	154.0	0.00	154.0	0.00	212.63
SUM	154.0	0.00	154.0	0.00	212.63

STEADY STATE. HOVER

RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	r.)	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	96.0	0.00	96.0	0.00	40.21
SUM	96.0	0.00	96.0	0.00	40.21

TABLE CIX - Continued

STEADY STATE, ASCENT									
RANGE	MAX.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME				
PELOW	0.0	0.00	0.0	0.00	0.00				
	0.0	0.00	0.0	0.00	0.00				
0.4		0.00	0.0	0.00	0.00				
0.5	0.0	0.00	0.0	0.00	0.00				
0.6	0.0	_		•01	0.00				
0.7	1.0	.01	1.0						
0.8	0.0	0.00	0.0	0.00	0.00				
0.9	0.0	0.00	0.0	0.00	0.00				
1.1	0.0	0.00	0.0	0.00	0.00				
1.2	0.0	0.00	0.0	0.00	0.00				
1.3	0.0	0.00	0.0	0.00	0.00				
1.4	0.0	0.00	0.0	0.00	0.00				
1.5	0.0	0.00	0.0	0.00	0.00				
1.6	0.0	0.00	0.0	0.00	0.00				
1.7	0.0	0.00	0.0	0.00	0.00				
1.8	0.0	0.00	0.0	0.00	0.00				
2.0	0.0	0.00	0.0	0.00	0.00				
2.7	0.0	0.00	0.0	0.00	0.00				
NONE	184.0	0.00	184.0	0.00	230.14				
SUM	185.0	•01	185.0	•01	230.14				

STEADY STATE, LEVEL FLIGHT

RANGE	MAX. OCCUR.	NZ DURATION	FOTAL OCCUR.	NZ DURATION	TOTAL TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	1.0	•02	1.0	•02	19.31
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	443.0	0.00	443.0	0.00	1210.12
SUM	444.0	•02	444.0	•02	1229.43

TABLE CIX - Concluded

61	T E A	nv	STAT	F.	DES	CENT

DANCE	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	207.0	0.00	207.0	0.00	151.64
SUM	207.0	0.00	207.0	0.00	151.64

STEADY STATE, AUTOROTATION

RANGE	MAX. OCCUR.	NZ DURATION	TOTAL	NZ DURATION	TOTAL TIME
BFLOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	1.0	.12	1.0	•12	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	1.0	0.00	1.0	0.00	•66
SUM	2.0	•12	2.0	•12	•66

TABLE CX. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER n_{Z} PEAKS FOR RIGHT SIDEWARD FLIGHT

	MAV	419	TO T 41		
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME
RFLOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	2.0	0.00	2.0	0.00	1.13
SUM	2.0	0.00	2.0	0.00	1.13

TABLE CXI. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $n_{\mathbf{Z}}$ PEAKS FOR LONGITUDINAL REVERSAL BY MISSION SEGMENT

	LONG	TUDINAL CO	(EDEA)	HOVED	
	LUNGI	TUDINAL REV	ATRIAL .	HOVER	
244.55	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	occur.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0 • .00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0•0 0•0	0.00 0.00	0.00 0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00 0.00	4.0	0.00	•58
NONE	4.0	0.00	4.0	0.00	• 70
SUM	4.0	0.00	4.0	0.00	•58
	LONG	ITUDINAL RE	VERSAL.	ASCENT	
	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	1.0	0.00	1.0	0.00	•14
SUM	1.0	0.00	1.0	0.00	•14

TABLE CXI - Concluded

LONGITUDINAL	. REVERSAL .	LEVEL	FLIGHT.
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	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	4.0	0.00	4.0	0.00	•55
SUM	4.0	0.00	4.0	0.00	.55

TABLE CXII. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER n_{Z} PEAKS FOR LATERAL REVERSAL BY MISSION SEGMENT

	DI 1413	510N 5EG					
	LA'	TERAL REVER	SAL . HOVE	R		AE 00 00 00 00 00 00 00 00 00 00 00 00 00	
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME		
BELOW	0.0	0.00	0.0	0.00	0.00		
0.4	0.0	0.00	0.0	0.00	0.00		
0.5	0.0	0.00	0.0	0.00	0.00		
0.6	0.0	0.00	0.0	0.00	0.00		
0.7	0.0	0.00	0.0	0.00	0.00		
0.8	0.0	0.00	0.0	0.00	0.00		
0.9	0.0	0.00	0.0	0.00	0.00		
1.1	0.0	0.00	0.0	0.00	0.00		
1.2	0.0	0.00	0.0	0.00	0.00		
1.3	0.0	0.00	0.0	0.00	0.00		
1.4	0.0	0.00	0.0	0.00	0.00		
1.5	0.0	0.00	0.0	0.00	0.00		
1.6	0.0	0.00	0.0	0.00	0.00		
1.7	0.0	0.00	0.0	0.00	0.00		
1.8	0.0	0.00	0•0 0•0	0.00 0.00	0.00 0.00		
2•0 2•2	0.0 0.0	0.00 0.00	0.0	0.00	0.00		
NONE	2.0	0.00	2.0	0.00	.24		
NONE	2.00	0.00	2.0	0.00	• • • •		
SUM	2.0	0.00	2.0	0.00	•24		
	LA	TERAL REVER	RSAL + ASCE	ENT			
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME		
BELOW	0.0	0.00	0.0	0.00	0.00		
0.4	0.0	0.00	0.0	0.00	0.00		
0.5	0.0	0.00	0.0	0.00	0.00		
0.6	0.0	0.00	0.0	0.00	0.00		
0.7	0.0	0.00	0.0	0.00	0.00		
0.8	0.0	0.00	0.0	0.00	0.00		
0.9	0.0	0.00	0.0	0.00	0.00		
1.1	0.0	0.00	0.0	0.00	0.00		
1.2	0.0	0.00	0.0	0.00	0.00		
1.3	0 • C	0.00	0.0	0.00	0.00		
1.4	0.0	0.00	0.0	0.00	0.00		
1.5	0.0	0.00	0.0	0.00	0.00		
1.6	0.0	0.00	0.0	0.00	0.00		
1.7	0.0	0.00	0.0	0.00	0.00		
1.8	0.0	0.00	0.0	0.00	0.00		
2.0	0.0	0.00	0.0	0.00	0.00		
2.2	0.0	0.00	0.0	0.00	0.00		
NONE	2•0	0.00	2.0	0.00	•17		
SUM	2.0	0.00	2.0	0.00	•17		

TABLE CXII - Concluded

LATERAL	REVER	RSAL .	LEVEL	FLIGHT
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_	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
PELOW	0.0	0.00	0.0	0.00	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	0.0	0.00	0.0	0.00	0.00
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	3.0	0.00	3.0	0.00	.38
SUM	3.0	0.00	3.0	0.00	•38

COLLECTIVE PUSHOVER. DESCENT

	MAX.	NZ	TOTAL	NZ	TOTAL
RANGE	OCCUR.	DURATION	OCCUR.	DURATION	TIME
BELOW	0.0	0.00	0.0	0.0ბ	0.00
0.4	0.0	0.00	0.0	0.00	0.00
0.5	0.0	0.00	0.0	0.00	0.00
0.6	0.0	0.00	0.0	0.00	0.00
0.7	0.0	0.00	0.0	0.00	0.00
0.8	0.0	0.00	0.0	0.00	0.00
0.9	0.0	0.00	0.0	0.00	0.00
1.1	0.0	0.00	0.0	0.00	0.00
1.2	1.0	•01	1.0	•01	.07
1.3	0.0	0.00	0.0	0.00	0.00
1.4	0.0	0.00	0.0	0.00	0.00
1.5	0.0	0.00	0.0	0.00	0.00
1.6	0.0	0.00	0.0	0.00	0.00
1.7	0.0	0.00	0.0	0.00	0.00
1.8	0.0	0.00	0.0	0.00	0.00
2.0	0.0	0.00	0.0	0.00	0.00
2.2	0.0	0.00	0.0	0.00	0.00
NONE	22.0	0.00	21.0	0.00	5.37
SUM	23.0	•01	23.0	•02	5.44

TABLE CXIII. OCCURRENCES AND DURATIONS FOR MAXIMUM AND TOTAL MANEUVER $n_{\boldsymbol{z}}$ PEAKS FOR TRANSIENT BY MISSION SEGMENT

	TR	ANSIENT.	GRD CON	GRD CONDITION		
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR•	NZ DURATION	TOTAL TIME	
BELOW	0.0	0.00	0.0	0.00	0.00	
0.4	0.0	0.00	0.0	0.00	0.00	
0.5	0.0	0.00	0.0	0.00	0.00	
0.6	0.0	0.00	0.0	0.00	0.00	
0.7	0.0	0.00	0.0	0.00	0.00	
0.8	0.0	0.00	0.0	0.00	0.00	
0.9	0.0	0.00	0.0	0.00	0.00	
1.1	0.0	0.00	0.0	0.00	0.00	
1.2	0.0	0.00	0.0	0.00	0.00	
1.3	0.0	0.00	0.0	0.00	0.00	
1.4	0.0	0.00	0.0	0.00	0.00	
1.5	0.0	0.00	0.0	0.00	0.00	
1.6	0.0	0.00	0.0	0.00	0.00	
1.7	0.0	0.00	0.0	0.00	0.00	
1.8	0.0	0.00	0.0	0.00	0.00	
2.0	0.0	0.00	0.0	0.00	0.00	
2.2	0.0	0.00	0.0	0.00	0.00	
NONE	201.0	0.00	201.0	0.00	60.74	
NONE	201.0	0.00			60.74	
SUM	201.0	0.00	201.0	0.00	60.74	
	TR	ANSIENT.	TRANSITI	ON		
RANGE	MAX. OCCUR.	NZ DURATION	TOTAL OCCUR.	NZ DURATION	TOTAL TIME	
BELOW	0.0	0.00	0.0	0.00	0.00	
0.4	0.0	0.00	0.0	0.00	0.00	
0.5	0.0	0.00	0.0	0.00	0.00	
0.6	1.0	•09	1.0	•09	0.00	
0.7	1.0	•22	1.0	•22	0.00	
0.8	0.0	0.00	0.0	0.00	0.00	
0.9	0.0	0.00	0.0	0.00	0.00	
1.1	0.0	0.00	0.0	0.00	0.00	
1.2	0.0	0.00	1.0	•01	0.00	
1.3	1.0	•01	1.0	•01	.24	
1.4	9.0	0.00	0.0	0.00	0.00	
1.5	0.0	0.00	0.0	0.00	0.00	
1.6	0.0	0.00	0.0	0.00	0.00	
1.7	0.0	0.00	0.0	0.00	0.00	
1.8	0.0	0.00	0.0	0.00	0.00	
	0.0	0.00	0.0	0.00	0.00	
2 ^	0.0	0.00	0.0	0.00	0.00	
2.0		0.00	1.0	0.00	•95	
2.0 2.2 NONE	1.0	0.00				
2.2	1.0 4.0	•32	4.0	•33	1.19	